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Journal

3 November Tuesday

We worked on micro-climate materials and in the afternoon we tried to go over to Johnston to oil the gun which is stored at the Security police headquarters. The gun was very rusty and had pits in the barrel. While over there we talked with Major Sudsa about the hard core we were hitting on the island and went to talk with Paul De Wesse about the rats on the island. The exterminator for the island is going to try to collect a specimen for us and keep us informed on the rat situation. There are two species of rats on the island according to the exterminator.

We went out to band birds and there were very few on the island which makes it hard to band. The Wedgetailed Shearwaters are thinning out and there are few left.

4 November Wednesday

Doc and I went around the island after checking the mice to check for strange birds. We saw two RITE land on the hill by the Frigate nesting colony. They went into a large burrow and were under ground, the burrow was about three feet deep and 1 and 1/2 wide.

We conducted the growth and development on the Common Noddies and

5 November Thursday

We went around the island and checked the mice as usual and found nothing.

We went over to Johnston on the 1100 M-boat to pick up two rats at the Camp office. ~~and then went over to the camp office to pick up the rats~~ We ate dinner over there and came back on the 1330 M-boat.

We saw 5 Fairy terns on Johnston while by the dispensary.

Worked on Paper work all the rest of the day.

We banded Wedge-tailed Shearwaters and only banded for one hour before we had chased all then off the island.

I banded 7 chicks and Doc banded two Dark Phase birds. We only found 48 birds to band.

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6 November Friday

We checked the mice and walked around the island as usual. We saw three RTTB fly over the island. I can't remember what else we did.

7 November Saturday

Today we conducted the activity study on the Frigate Bird and Red-footed Booby. While I conducted the study I spent the time in between counts at the signal building reading the book "Basic Problems and Techniques in Ring Research" trying to get some better idea how to map and study the plants on the island. I picked up several ideas and Doc also has ideas that he got from Pottery friends he had written. I am going to try to determine how much moisture the soil can hold on the island.

In the evening we banded 4 Wedge-tailed Shearwater chicks and two Common Noddie chicks. The WT were study chicks which were on the islet.

We set the mouse traps all day and checked them every two hours to see what the activity period is. we did not bait the mouse traps. We intended on running the traps all night but over slept one period so we will have to run them another night.

We forgot to set the mouse traps last night.

8 November Sunday

I took advantage of the facilities on the station for recreation and did as little as possible, read and swam and played volleyball and watched the movie. I started working on Deutsch. T

The dogs killed a young Wedge-tailed Shearwater.

We ran the mouse traps all day every two hours and then ran them all night, had what a miserable night. We would get one hour sleep between running the traps each time. One thing became evident after running the traps all night (it is one hell of a way to make a living). The mice are active early in the evening and at each successive two hour period they were less active. The number caught each hour was less, not baiting the traps may have had a part to play in the decreasing number caught, but we caught new ones all night.

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9 November Monday

Doc and ran the traps for the last time at 0700 and then I tried to reoperator and slept most of the morning. I worked on catching my journal up and banding forms all afternoon.

We banded 31 Wedge-tailed Shearwaters and cleaned and baited the traps. Most were not in working order. We banded 10 chicks and one Dark-phase bird. The chicks are coming out of the burrows and sitting. Several of the chicks are free of down and will be flying within a week (I think, perhaps two weeks). Several of the chicks which I picked up, have started to lose weight.

10 November Tuesday

Doc and I ran the traps as usual and walked around the island to check for accidentals. We saw one immature Frigate on the island and another one floating in the lagoon.

Happy (the dog) is killing Wedge-tailed Shearwater chicks at a fast pace, he killed three chicks in the last 24 hours and one was a Dark-phase bird. It makes me mad but there is nothing we can do, he is going out by himself and the Coast Guard can don't try to stop it. They are not encouraging it now like they were when I first got here (because of better interpersonal relations).

We got all kinds of good mail and a notice that I had made 737. I worked on records and orders and letters all day and night. Doc is running the mouse traps all day and we are going to run the traps all night.

We ran the traps all night every two hours and had a miserable night. I stayed up until 0400 and Doc tried to sleep. I finally gave up and went to bed. The mouse catch gradually decreased from 3300 until morning, we baited the traps and checked them all each time for correct operation.

I think I heard a Gray-backed tern twice, but am not sure since it has been so long since I heard the call.

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11 November Wednesday

We slept until noon after last night. Doc and I weighed and measured the one remaining Common Noddy chick.

We checked the possibility of placing orange streamers on the wing for better identification from a distance. Three of us placed the streamer on the inside of the Scapulars and this seemed to restrict the flight, because of the space left in the wing where the scapulars normally covered, the streamer held the scapulars next to the wing and would not then go into place. The last bird we placed the streamer on the outside of the Scapulars and this did not affect the flight in any manner. The correct length of streamer seemed to be about 6 inches after the joint was pulled up. You could see this type of streamer at least half again as far as the bird streamers. Long after you could not identify the bird you could see the orange streamer which flared about the wing.

I counted the Red-tailed Shearwaters on the island last night. There were only 210 and they were scarce.

12 November Thursday

We intended on doing the North Island census in the morning but could not because of a change in X-boat schedule. They tried to tell us that it would take 8 hours just to go over to North Island. This sort of made no sense, as a matter of fact it passed us off. I went over to talk with Carl Weisberger who is the Navy XO and a friend who I had met playing Bridge. He arranged it so we just have to call him and he will set up a schedule for our convenience.

There were 15 Ruddy Turnstones and 10 Golden Plovers and one Wandering Tattler.

We checked the mouse trap and walked around the island to look for stringers.

Most of the day was spent fighting the X-boat schedule, which we remedied.

Carl Weisberger told us that he had seen 10 to 12 mud-hens at a brackish water pond at the end of the runway. I don't know the species.

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13 November Thursday

Bob and I went over to Johnston on the 1100
motor boat to conduct the census. The CO could not
find us one of the new bicycles and the old one which
I was riding broke down so Doc ended up doing the
entire census, and I sat around looking at the
beautiful scenery. We stayed over and conducted
business all afternoon and then stayed for the movie.

If I ever write weather data write:

National Weather Records Center

U.S. Weather Bureau

Federal Building

Asheville North Carolina 28801

There is a book on the tide fluctuations:

Central and Western Pacific Ocean

and Indian Ocean

14 November Friday

I was up until 0200 building relationships with
the crew and did not want to get up to conduct the
activity study but somehow I managed to crawl out
early and slept between counting birds?

I'm sure the light intensity determines how
active the Great Frigatebirds are. Today was a bright
sunny day and there were seldom any birds on the island,
on some days there is a cloud overcast and the birds
may sit on the island all day without going out to
sea.

The Red-footed Boobies are starting to sit with
the Frigates and on the islet and I feel they are
starting to show courtship behavior. I found one
sitting in the Frigate colony the other night.

Doc was sick as a puppy, seems like he has too
much interpersonal relationship with the crew. He
was incapacitated all day.

There was a RTTB under a Meschery tree by the
barracks. The RTTB flew over the island.

Twice now I have seen fish jump out of the water
trying to catch a Golden Plover when it flew close
to the water. One problem the fish were only 2 inches
long, the whole school jumped to catch the Plover.

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15 November Sunday

A day of relaxation and sleep. Doc and I checked the mice and then checked the island. After supper we released the bird on the island and then watched the movie.

We found one Frigate sitting on a nest with one egg, the egg could have been there almost two weeks since we have been trying to avoid disturbing the nests.

We set out 27 traps to catch mice to autopsy.

16 November Monday

We autopsied mice all day, twenty-one done. Doc skins and I autopsy.

17 Nov Tuesday

We checked the mice and then autopsied mice in the afternoon and in the morning we wrote the report. Several things are becoming evident as I autopsy:

1. The mice are not breeding at the present time.
2. One of the females are pregnant but several have embryo scars.
3. The males are mostly not fertile, most of the mice examined are immature.
4. The majority of the mice were immature and have never bred.
5. There are two types of parasites, one small white one and an orange one.
6. The mice autopsied were not fat and only a small number had fat at all.
7. Mice with a molt pattern are being saved as flat skins.
8. I can't tell if the mice in the 10 iron cage are immature or if they have ever bred.
9. I can see what I think are embryo scars but whether they are all from the last litter I can't tell. One female had 11 scars on the one side, which seems a little high for one litter.

Counted Wedgetails.

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~~Tuesday~~

Wednesday

We ran the nice traps, and checked the island. We autopsied mice all day and completed the job, we have over 50 done.

Doc and I have been putting orange streamers on Wedge-tailed Shearwaters each morn g and none have been seen since. We are trying to use bigger streamers so they can be seen from a greater distance. We have been using two methods. One method is to use a jar only bigger than the leg streamer, it can be seen after you can't identify the bird. The other method I don't like the way of being cruel to birds. We cut a hole in the membrane and attach a cattle tag through the earbrand and attach an orange streamer to the tag. There are two faults, one the cut will be continually irritated by the streamer flying in the wind, second the cut usually hits a blood vessel. Of the 12 birds cut through the membrane only 2 succeeded in flying away the rest lit in the water, they would keep flopping their wing trying to get rid of the irritation. Beside the fact it irritated the birds it is very cruel and I will be damned if I will do it any more. I don't killing a bird or attaching bands, but to place a streamer on a bird and have it be continually in pain is beyond my abilities to do.

We were out looking at the Wedge-tailed Shearwaters and all of a sudden I realized that there were Grey-backed Terns calling. I thought I had heard them before, but was not sure. We counted 19 on the old dock.

There is at least one chick on the island which is almost flying and the Wedge-tailed Shearwaters will scarce on the island in two weeks.

19

November

Thursday

Doc and skinned out the two ducks and I skinned the Sharp-tailed Sandpiper so Carangi (A CG man) could take them back to Honolulu to Dr. Ely. The ducks were also autopsied and the stomach and tongues were saved. We worked on reports in the afternoon and played games.

There 3 Great Frigates with eggs.

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20 November Friday

Today I conducted the activity study and noted it between times. Doc went to Johnston to pick up more rats. He ran the noon grid. Rather an overcast day. The Frigates stayed on the wires most of the morning.

Today showed what I feel is the factor controlling the activity of the birds. The early morning was dark and cloudy, the Frigates stayed on the wires until the sun came out and then the birds went off to feed. You could see the difference in the number of birds on the wires after the sun came out.

21 November Saturday

Today Doc and I went to Johnston Island to conduct the survey for the special report which Fly wants for our report. The Wedge-tailed Shearwater chick and the RTTB chick were gone. We saw one Golden Plover on the beach which had an orange streamer. We could not get boat accessions to North Island so we omitted it on this survey.

I counted the adult Wedge-tails. We obtained a number of 41. I can't believe how fast the adults are leaving, the chicks are being starved so they will lose enough weight to fly.

22 November Sunday

We worked on the Special Report, most of the day and discussed the Shear bird.

The crew from the Foghorn Blackbird were here all day for recreation and a cook out, every one was smashed by 1400. I played bridge with the Captain of the ship and Mr. Dick Harrell.

Doc and I went out to check for Wedgetails with orange streamers on their wings but found none.

I observed a Wedge-tailed Shearwater chick feeding tonight and they feed different than the Albatross. In the Albatross the chick opens its mouth wide and so does the adult. In the Wedgetail the adult opens

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22 Nov [Cont]

1. The chick sticks its bill down the adult's mouth. Step by step it is:

1. The chick sits in front of the adult's head, and there is a high pitched sound and the cheep is emitted fast.

2. The chick pecks at the adult's head and neck pulling feathers and making a real nuisance. The chick keeps pecking away until the adult opens its mouth, all the time the cheep is kept up.

3. When the adult opens its mouth the chick sticks its bill down in the throat of the adult and pulls out the partly digested fish material. The food is highly composed of fish pieces. The chick is younger the regurgitated food is really soft and the adult gradually over the life of the chick the food becomes a higher content of partly digested fish materials.

4. The chick may feed any time and always feeds more than once. The chick will chick all about the response of the adult to open its mouth and feed the chick swallows the food and then starts over again.

5. The chick always stays in a submissive posture by sitting low to the ground and holding its back and head lower than the adult's head. This submissive posture is common in all the sea birds I have seen feed so far.

6. The chicks can be heard cheeping at night even when there is no adult present. It may play a part in drawing the adult to the nest. In the early summer, August when the chicks are about a month old this cheeping can be heard by it seems like all the chicks in the area. The adults do not feed the chicks every night, so I don't know if the chicks cheep every night or only when they are hungry or at a definite interval. The adult in an area may elicit the response of the chicks cheeping, the chick may be able to call the adult or it may hear the adult calling in the air or on the ground. I have only heard an adult's digtail call once while it was in the air.

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23 November Monday

I typed all morning on the Special Report for Tly. I wrote the species account for the report and typed it up.

After dinner Doc and I went up to the other end to rearrange the mouse grid, it now contains 72 traps in a grid 9x8 and the traps are 20' apart, with a 50 foot strip where the road is.

The wind was out of the south instead of the usual ~~W~~ east and the Great Frigatebirds were sitting facing the wind and were sitting on different wires than usual, the birds sit on wires so they always face the wind, they roosted in the same fashion.

The number of Sooty Terns flying over the island at night continues to increase and you can hear a difference each week. Tonight there was a big enough increase in number that I could tell the difference from last night. There must have been over 300 birds within ear hearing distance at one time. The Sooty Terns are never heard ~~W~~ during the day, except for an occasional one or two.

The Wedge-tailed Shearwater chicks are out at night in force and I could see a difference from last night, very few can be heard giving the high pitched cheeping feeding ~~W~~ call. Most don't have down on the head and neck region, but the birds which do have down have it on the neck and head. I saw tonight chicks where I have never seen them before. We are going to go out and band chicks ~~W~~ Wednesday night.

I did not find any adults with orange wing streamers tonight and perhaps I will not find any.

24 November Tuesday

Doc and ran the us traps and trapped 50 mice, but many of the traps were not in working order so it was not a good representation of what will be the trend of this grid. We toe clipped 22 new mice ~~W~~ today. There were a tremendous number of traps which had been sprung but there were no mice in them.

While running the mouse grid we saw a Hawaiian Short-eared owl. It circled the island several times before disappearing behind the island. The bird came out of a burrow 15 feet from the grid.

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24 November Tuesday [Cont]

Don and I worked on the vegetation banding of the island in the afternoon and in the morning.

We banded 11 Wedge-tailed Shearwaters which at night and counted the adults.

25 November Wednesday

Today was one of those days on Sand Island which makes one appreciate the outside world - you get off this S. O. B. - hole.

To start the story out right one must know that a week ago I went to the registry office to get an application for a government drivers license. They told me to bring the application back by sundown from 0730 to 0930 and take my drivers test. This morning Don and I got up early to catch the boat. When we got there all we had to do was sign a slip of paper and they told us to come back tomorrow for the license. Why would I have not signed the paper? I guess I don't understand the importance of the days wait when it could have been done in one day, instead of playing around for three days. To top of the morning I had to do it on the island until 1100 for the boat ride.

While on Johnston I saw two RTB and one Golden Plover with an orange streamer.

We had another cook-out.

I estimated that there were over 1000 Sooty Terns flying over the island tonight. I don't know why the great jump over last night but you can easily hear the difference. It reminds me of banding on Kur in the central room.

We checked and there were no Bulwer's Petrels on the island tonight that we could find.

There was 12 Hawaiian Noddies on the island tonight. I don't know if they actually left the island or if we just didn't find them.

The natives were restless tonight.

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26 November Thursday

Today was Thanksgiving and it was pleasant, at least the Coast Guard tried to make it pleasant for the men here and I think they succeeded to a certain extent. They had all kinds of mixed drinks, being a beer as I did not indulge in the stuff but only beer. I can't stand hard liquor. The meal was unbelievable, they had enough set for a tribe of Indians. We took the day easy and tried to forget the fact that we were not home.

While we were playing volleyball I noticed a flock of Great Frigate birds over head and all of the birds were flying in a circle around the island in the entire thermal. Apparently all the males were sitting on the ground displaying for the females.

The sooty Terns were starting to gather around the island at 1800. There were about a 1000 flying over the island at night, I do not know how you estimate, but there were many birds and 100 seems like a good round number to state.

Doc Kirkpatrick and I conducted the plant survey for an hour after chow and it helped us to relax.

I saw an adult Frigate take off the water. I did not see the bird hit the water so I don't know how long it was in the water.

I saw a Red-tailed Shearwater which we had placed an metal tag and streamer on.

Doc and I banded 2 Red-tailed Shearwater chicks.

27 November Friday

Doc and I checked the mouse traps and I saw an immature Frigate.

I think I saw a Red-footed Booby defending its nest site, there is no nest but I felt that there will be soon or it was defending its roost site on the ground.

There appeared to be more Brown Boobies on the island this morning.

We banded a RFB bird morning.

The common Noddies were feeding just off the island this evening at dusk. They were feeding in shallow water about 100ft to 100 yards of the island.

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27 November [Cont]

We ran the activity study all day and conducted the plant density survey. It was rather a cloudy day and the sun came out occasionally high all day long. The vegetation study will be applicable to all the studies conducted on the island.

I can hear a difference in the number of Sooty Terns on the island over last night. They are increasing at a fast steady rate.

28 November Saturday

We ran the mouse traps and looked over the island. I completed all the paper work that I had to do for the island before I left.

Doc and I went to Johnston Island to conduct the bird census. We went to talk to Wayne DeWitt about a vehicle to conduct the survey, he is resident manager for Holker and Harver. We could cover more of the island in less time with the truck. We stopped at points along the beach to check for birds.

The Golden Plovers did not seem to have territories set up. We saw two large groups one of the groups had 40 birds and none showed any territory defense. There were scattered birds which had territories but as the whole they were in large groups. We counted 93 Golden Plovers.

We counted 4 Ruddy Turnstones.

We counted 2 Sanderlings.

We saw 3 Golden Plovers with eggs. Shown to.

When we went out to set the traps and count birds for the survey we counted 37 Grey-backed Terns, and 20 Hawaiian Noddies.

There was a very large flock of Sooty Terns off the east shore. They seemed to be hovering in the same place. I don't know for sure how many there were but there was a tremendous number, it sounded like the time on Kure when there were 6000 birds over my head. I don't know for sure how many there were but am going to estimate there were over 5000 birds. How can you tell for sure, I do know there was a very large flock,

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29 November Sunday

Doc Kirkpatrick and I checked the mouse traps and conducted the bird census for the report.

One of the crew from the *Blackbird* shot three Great Frigate-birds, an adult ♂ & ♀ and one immature ♀.

30 November Monday

Caught the plane at 2200 and arrived at the hotel at 0300. Met Lehner & moved in with him.

1 December Tuesday

Bob Stouden Phil Lehner & I went to Pearl City and Pearl Harbor & moved equipment from the shore water. We decided to go to Kauai so we left Honolulu at 2000.

2 December Wednesday

We went around both roads looking at scenery and looking for birds. I took all kinds of pictures. What a riot we had. It cost about \$40 and was worth it. A bus driver backed into us and at night our lights would not work so we had to call a taxi.

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2 Dec [cont]

One of the funniest days of my life. Lehner took a picture of Standon taking a picture of a horses ass.

We got back to Honolulu about 2230 and Witz & Kepler had arrived so we talked most of the night.

Clapp & Warren King left on the Cromwell yesterday.

3 December Thursday

Witz, Lehner & I took care of running around. The ATF arrived the following people are here now; Fred Sibley, Doug Hackman, Paul Woodward, Bob Standon, Phil Lehner, Bill Witz, Doyle Husted, Dick Merrill, Cameron Kepler, Allen Anderson, Doug Whitman. The first 7 & I went out to supper & 2 of us went out on the town.

What a night one of the wildest ever had. Lehner auction a show.

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4 Dec Friday

Slep all morning and ran errands all afternoon. Went to the football game & other places. Bought a supply of books.

5 Dec. Saturday

Slep all morning and Bill Wirtz & I went to Bishop Museum to make out McRae cards on all oceanic birds in the collection.

6 Dec Sunday

Max Tomson and I went to the Zoo in Honolulu and I took tele-photo pictures of all the animals except for a few when I ran out of film.

7 Dec Monday

Wirtz, Kepler and Kusted and I ran around town all day and bought supplies for Sand and Kure. I had a big long talk with Ely about the project. He seemed to be worried about the look in my eye and thinks I will come off Kure before the end of three months.

8 Dec Tuesday

I left for Kure on the 1000 Northwest flight and arrived on Midway at 1430 and met Don Owsby and Ludwig and Ballard. Spent the evening reading.

9 Dec Wednesday

Went to eastern Island with Dr. Harvey Fisher and Jim Priest and Ed Mesith who are working on the Albatrosses.

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10 Dec Thursday 1964

I arrived back on the island paradise today and am glad to be back, I feel better already. The conditions for working are so much better and more pleasant surroundings and when I step out side to spit it does not land in the ocean like on Johnston. I think I developed all kinds of phobia on that hole.

Fleet showed me the island in a sort of fast fashion and I could not remember every thing he said.

11 Dec Friday 1964.

Bob Fleet and I went out and picked up Black-footed Albatrosses which were on nests and recorded band recoveries of nesting birds. We spent the entire afternoon and evening. Friday morning Bob showed me around the island, we checked the Laysan and Black-footed Albatross nests which they are recording nest attendance of birds and nest change over.

We went out and banded Bonin Island Petrels on a study area where Bob is going out every night and recording the number of birds present and the number banded, he is keeping track of the weather conditions to try to determine why there are more birds on the ground on different nights. I will take over the study when Bob leaves.

12 Dec Saturday

We conducted the Shorebird seal census and counted all the Laysan Albatrosses which were on nests. It took me 5 solid hours of walking to cover the beach and all the cuts in the Scaevola connected to the beach. Some of the Blackfoots which we handled yesterday have deserted.

We banded Redfooted Boobies in the central Roost. We banded 17 RFB and one Frigate and collected 6 recoveries. All the birdw we painted go green so we could tell individual birds from the two respective roosts (north and Central).

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13 December Sunday

We conducted the activity study all day and it was the usual very boring thing which Bob and I both hate. It was cold and miserable and rained on Bob. There were Brown Boobies feeding around the island all day mostly close to shore. We recorded what individual birds were doing and what patterns they follow while leaving the island or coming to the island after feeding. There seems to be a set pattern in leaving the island and returning of the RFB. There are patterns in all the species.

Bob set the traps for the Area AL rat grid.

14 December Monday

Bob Fleet and Dave Worth and I did the rat trapping and finished at 1130 intime for chow. Several rats were killed and some of them were eaten. I worked on Wedge-tailed Shearwater data in the afternoon and checked the Laysan Albatross.

15 Dec Tuesday

We ran the rat traps with the help of Dave Worth until 1000 and thne he had to go to work, Bob and I completed the work by 1200. Checked the nest attendance of the Laysan Albatross, and worked on paper work.

16 Dec Wednesday

Ran the rat traps and completed the task with 149 rats in 144 traps. We had a trap with two rats in it one was eating the other while it was still alive, the one rat had its hind leg eaten and its guts were hanging out and it was still alive. Made me sick and shiver.

17 Dec Thursday

Did the rat trapping and it rained and the wind blew at 40 knots. One of the most miserable days of my working carreer on the project. We finished an 1500 The plane could not land but dropped mail. It is too cold to work in lab or work on the mess deck on paper work so I just went to bed. There is no heating on the island except for small electric heater.

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18 December Friday

It rained all morning and we stayed in instead of playing the valent Biologist (Fleet and I both melt). In the afternoon we went out and staked 25 Albatross nests to be used as acontroll. The nests will be checked once a week to check nesting success of this species if there is no disturbance. I will stake 25 more nests when I get a sunny day and will not get wet. It rained all evening and night.

19 December Saturday

It rained almost all day but we conducted the shorebird, seal, and albatross census. I finished up on transcribing the Wedge-tailed Shearwater data on to the individual sheets.

I saw a thermal with 15 Brown Boobies in the air at wonce and this is the first time that I have ever seen this, the wind was blowing very hard (30 knots). I have seen this several times since coming here this winter.

Since there was no plane last Thursday and we had no movies we played Scrabble ~~that~~ with two people as pardners.

20 December Sunday

Tried to conduct the Activity study but the wind was blowing at 40 Knots and it was too miserabl and I had to hang onto the tower and could not get anything done so I quit.

The most terrible storm hit the island today, they say winds up to 65 knots. and the waves were some= thing else.

21 December Monday

Rain all day and the wind so we stayed in only going out to check the Albatross nest.

We walked around north point to survey the damage done by the storm and then on the way we recovered ~~the~~ picked up birds on nests (Blackfooted Albatross)

I picked up a Leach's or Cook's Petrel on the beach. Its rump is white. The bird was dead & in bad shape

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22 Dec Tuesday

It rained all day and the wind blew at about 40 knots. We hibernated in the station headquarters all day. It was so cold that we ~~had~~ had to work in the station headquarters by the heater. For the last week the lab has been too cold to work in so we have a desk in the living quarters. I worked on Wedgetail data all day and checked the Albatross nests.

23 Dec Wednesday

Today was a good day for work and planes, 4 planes came in today with supplies and mail. The wind was only about 15 knots and I only got rained on all day once which is a record for this tour on the Island paradise Kure.

I staked 25 Laysan Albatross nests for a control, the nests will be disturbed as little as possible and the nesting success will be recorded and this should give success of the eggs and nesting success.

I looked for shells and checked the beached for tagged seals, I was successful in both. I have about 200 shells which were washed up on the beach over the last week storm.

Cameron and I collected 25 rats for Bill to autopsy for his monthly sample.

I am feeding the RTTB chicks and keeping notes on them for Bob Fleet. Fleet left the island today and Cameron Kepler arrived. I enjoy working with both of them. I am going to band Bonin Island Petrels.

Cam and I banded Red-footed Boobies.

24 Dec ember Thursday

We conducted the activity study all day in the rain, it was just a light rain so it was not too bad, cold on the feet which was the only part of us that got gold. We checked the Albatross nests.

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24 Dec Cont

Today was very exciting on the island. Cam saw two Black-footed Kittiwakes on the island, one an immature and the other an adult, there are atleast 5 Glaucous winged Gulls on the island and either a Western or a Herring Gull. I collected the immature Glaucous winged Gull but could not get near anything else.

It being Christmas eve we tried to better the relations with the crew by going to their party. An enjoyable time was had by all.

25 Dec Friday

We checked the Albatross nests and took the day off

26 Dec Saturday

We conducted the Shore-bird count seal census and counted the Albatross nests. I checked the beach and counted 78 seals on the beach. I s

I saw 20 Brown Boobies on the beach sitting in a big group. I have seen this before

I saw a Sanderling on the beach with only one leg. The right leg remains and the left was gone.

I counted 78 seals on the beach and many of them were tagged.

27 Dec Sunday

In the morning I walked around north point to take pictures and get seal numbers. After dinner Cam and I went out to get blood samples, take measurements, weight, and parasites of off Laysan Albatrosses. We spent most of the afternoon trying to get organized and getting out of the rain. After supper I walked around south point to check the albatross nests and check for seals on the beach.

We collected an Albatross which had a terrible looking growth on its back. It looked like it had been bitten by a dog and the backbone was showing and all infected. The bird was limping and near dead.

We walked around south point after the movie and caught a Glaucous Winged Gull which was weak and banded it and made out Mc Bee cards and took pictures.

D. -
Stadel
1964

Journal

28 December Monday

Checked Albatross nests in the morning and checked the beach for seals.

Cam and I cleaned the lab and worked on paper work for several hours. We staked the North Antenna Field into a grid where Cam is working on Dooby behavior. I collected Berleze samples.

In the morning I checked the south beach for seals and after supper I checked the north beach for seals and got a good picture of an Immature Black-legged Kittiwake. I walked 75 up within 15 feet of the bird to get the telephoto picture.

I checked the South Point for Gulls after the movie and then banded Bonin Island Petrels in the study area.

During the day there were up to 6 Ruddy Turnstones eating the rat poison outside the Skippers gas quarters and I imagine that they will die, unless they stop feeding the rats since there are less rats to be seen around the station.

There are dead rats laying all over the island, in every clearing over the island you can see the half eaten if they have been there very long.

After the movie I walked around North Point to check for seals and Gulls. There were no seals on the north point like in the day time. I did not see any Gulls.

I saw 14 Cassin's Noddies on the North east beach while walking around at night.

29 December Tuesday

I went around north point in the morning at 0800 to check for seals and there were none on the beach.

The sand island reappeared so they sleep out there not instead on on north point and on Green Island. I was also looking for the Black-legged Kittiwake so I could collect it. I also rode the scooter around South Point looking for the gulls and Kittiwake.

We collected Blood samples, parasited, did weight and measurements on Laysan Albatrosses.

I checked the north and south beach for the gulls after dark but did not see them. Banded Bonins. Worked on Paper work at night and read.

D.L.
Stadel
1964

P 213

Journal

30 December Wednesday

I worked in lab until my turn to conduct the activity study. The tour on the tower was very boring and nothing interesting was happening. After dinner I collected Berleze samples and checked the albatross nests. I went back up on the tower from 1430 until 1815 when roost counts were made for the report.

After supper Cam and I went out and banded Red-footed Boobies and Frigates. When we were going around North Point we caught a Glaucous-winged Gull and a Black-legged Kittiwake which cards were made out on the birds. The Kittiwake will be collected since it has a bad cut on its neck. Cameron does not want to collect the bird but I will kill it if I have to when he is gone from the lab. He wants to band the bird and release it but I don't feel this would be wise since it has a cut 1 and 1/2 inches long on its neck. The bird appears healthy but the cut looks raw and would eventually kill the bird anyway.

31 December Thursday

We conducted the seabird and seal census and counted the Albatross nests.

There was a 27 percent desertion of nests in the South Antenna Field where John Bushman and his crew mishandled Albatross which were on nests. This area was protected from the storm so I don't feel that the desertions can be blamed on the storm. When they collected blood samples they were rough and threw the bird when they were through. From the blood samples we have collected I don't feel that they would go back to the nest when they were disturbed.

I checked the Laysan control nests where there was no disturbance on the nests. There were three deserted nests of the 50 which were staked.

I killed the Black-legged Kittiwake and skinned the bird.

I collected Nest Litter from Laysan nests for the Berleze funnel.

I participated in the New Years eve celebration half heartedly since I had to work in the morning.

O.L.
Stadel
1965

P 214

Journal

January 1, 1965, Friday

I checked the Albatross nests and then spent the afternoon putting up the bird skin of the Kittiwake.

2 January Saturday

Cam and I collected blood samples and parasites and weight and measurements on Laysan Albatross. One died so we collected the bird for a study skin. I had to skin the bird and clean it partly at night.

3 January Sunday

Since it was Sunday I checked the Albatross nests and collected Berleze samples from the central roost. The rest of the day I spent playing touch football and enjoying myself.

4 January Monday

I worked on the Laysan skin all day and finished before supper. I checked the Albatross nests and collected Berleze samples. Banded Bonin Island Petrels.

5 January Tuesday

Checked the Albatross nests and collected weight, measurements, blood and parasites from Laysan Albatross. I skinned a Golden Plover. Worked on banding forms for 1964 to send into Mrs Church.

I went around north point to check for seals and on the way back I found a large fishball with a net.

6 January Wednesday

I worked on Brown Booby data in the morning and skinned and cleaned an Laysan Albatross skin in the afternoon since it rained. I collected Berleze samples and checked the albatross nests and checked the south end of the island for seals. I worked on Brown Booby data in the evening.

7 January Thursday

I worked on Brown Booby data in the morning and checked the Albatross nests. Cam and I collected data for Mc See cards and blood samples in the afternoon. I walked around the beach checking for seals and found some strange bird which I could not identify since it was in bad shape and will have to be identified by skeleton. *Pterodroma*

D.L.
Stadel
1965

P 215

Journal

8 January Friday

I conducted the activity study in the early morning and after dinner and after supper. After my 1400 watch I checked the Albatross nests and checked the beach for seal.

The behavior of the Red-footed Booby does not make sense, in the morning all the birds I saw went to sea in some direction of north and at night when they came back there was about an even number coming from the south and north. I don't know if I missed the birds going south or if they circled around the island or if they were drawn south by some feeding flock.

I feel that the Brown Booby does much of its courtship in the air. Last evening there were several pairs flying around together, there did not seem to be any attempt to feed. They were flying around the island with no apparent purpose. They do not land until it is almost too dark to land. I feel that they do the majority of their courtship in the air and also pair formation.

The albatrosses which fly around the island during the day land at night to rest or at least get out of the air. I have never seen an Albatross flying at night.

9 January Saturday

We conducted the shorebird and seal census and counted the Albatross nests. I worked on Brown Booby days and collected Berleze samples and banded Bonins, and checked the Albatross nests.

Dave Worth and Sam and I went skin diving in the ocean.

10 January Sunday

Since it was Sunday, we checked the albatross nests and collected blood from sick Laysan Albatross and I worked on Blue-faced Booby data, taking out Mc Dee cards for all the weight and measurements I collected last August and September.

D.L.
Stadel
1965

P 216

Journal

11 January Monday

Cam conducted an hourly census of the Blue-faced Booby colony to check and see which birds were in the colony when. It rained most of the day so I worked in lab on Blue-faced Booby data which I had collected last August and September. I checked the albatross nests and banded Bonins.

12 January Tuesday

I got up and skinned out an Albatross in the morning and cleaned another one which was in the freezer so it is ready to stuff. In the afternoon we collected blood parasites, weight and measurements from Laysan Albatrosses. We collected Laysan returns and after supper I conducted a seal census since Sand Island is only 30 feet long. We checked the Albatross nests and banded Bonins.

While I was conducting the seal census I found number 226 which has just been bitten by a shark and has a bad cut in its back. I don't see how any seal could live through that cut but there are several seals with cuts which look just as bad. I took pictures and described the cut in the seal notes.

13 January Wednesday

I payed the skipper a nickel to cut my hair just for laughs.

Cam and I check the same areas which we checked yesterday for returns and found 41 birds and 16 more which we have painted yesterday.

We went out to collect blood from one of the Laysan which was sick and could not collect it because we could not find the heart. Cam was through the South Antenna Field last night at 2300 and found a sick bird and this morning at 1100 there were two dead birds and one more about to die from the creeping crud. The terrible back disease where the back rots away.

I conducted a seal census after dinner and counted 62 seals on the beach.

I saw two Glaucous Gulls about immatures at south Point. There is also an adult Glaucous or Glaucous-winged Gull on the island.

D.L.
Stadel
1965

Journal

P217

14 January

Today was that day again that we had to conduct the activity study and it was as usual a windy miserable day. I had a fairly interesting morning on the tower but in the afternoon nothing of interest happened.

I conducted a seal census and counted 69 seals. While I was not on the tower I worked on Brown Booby data which I had collected last summer. There is no sand Island so the seal count was high.

15 January Friday

Today was a good day for seal tagging, Jim Priest helped up and we used a new method and tagged 20 seals in two hours and 5 minutes, and would have tagged more except we ran out of tags. We used the canvas litter that was made to weigh seals in. We put the heavy canvas litter over the seal and then sat on them or layed on them. The piper along the edge of the litter kept the seal from sticking its head out and biting us. Jim and I could catch seals faster than Cam could put the tags on and record what was caught. In one period we tagged 4 seals in 15 minutes. The wind was blowing out of the west at 30 knots so it was easy to catch the seal, and after being tagged they would just lay where we removed the litter. We removed the chain on one end so it would open up wide and it was easier to put it over the seal, one end was left intact so the seal could not get out of the litter.

I held the head and smooched with each seal, since I had not smooched for 7 months.

I worked on Brown Booby data in the afternoon since it rained.

I worked off my half of the report. I checked the albatross nests.

16 January Saturday

We conducted the shorebird and seal census and Albatross count. I finished the report and spent the rest of the day wandering around the island with Rock Hoppyness wishing I was somewhere else, it is one of those fits which hit after 6 and 1/2 months in the field. I want to go home, home, home, home, none.

D. L.
Stadel
1965

Journal

P 218

17 January Sunday

I worked on Brown Booby data that I collected last summer and spent the day wishing I were home or any place but here. It was a common felling that hits the male species when on isolated stations.

18 Jan Monday

It was raining part of the day so I put up two Laysan Albatross skins.

19 January Tuesday

I put up two gull skins one was a Glaucous and the other is a Glaucous-winged Gull. It rained much of the day.

After supper I felt like walking on the beach to goof off so I conducted a Seal census while I was checking the Albatross nests. There were 63 seals on the beach and the number was high since there is no sand island.

20 January Wednesday

In the morning after breakfast I went to South Point to check the beach for gulls and there was a strange bird so I shot it and it turned out to be a Herring Gull.

I saw seal number 226 which the shark had bitten on 12 January. It was laying with its head just out of the water and appeared like it could or would not move onto land. The seal had lost at least 100 pounds. The cut is deeper than I had originally thought, it is 2 to 3 inches into the meat on the back. The fat is a pale yellow instead of the normal dark yellow. The meat is very dark red. The cut bleeds when the seal moves. It does not move well on land and will not crawl far onto the beach. The seal swims almost normal, but slowly using its hind flippers. I took 3 more pictures.

I found a dead Immature green Frigate in the north Roost which had apparently died from the band being too tight. Cam and I have found 4 or more with this problem.

I checked the north Roost for Frigate & Red-footed Booby eggs but don't think there are any.

P.L.
Stadel
1965

Journal

P 219

21 January Thursday

Today was that day again when we tried to convince the Coast Guard that we are crazy, they think we are strange but sitting on a tower all day convinces them that we are more than strange and I agree with them. I worked on paper work in the times when I was not on the tower.

The monkey came up on the tower when it was partially light and I fed it an orange which he ate with apparent delight. Its ribs are showing now and he is lean and hungry. When he was offered an orange a month ago he would not eat it.

I checked the Albatross nests and banded Bonin Island Petrels.

22 January Friday

Today was a day. I checked the beach in the for strange Gulls but there were none. I went to North Point to collect the seal skeleton which had been there for the last 10 months. The recent storm washed the bones which were on the top of the ground all over the area and then the wind piled the sand one foot deep over the top. The area now looks like I dug a grave for an elephant. I did not find all the bones but I did get the skull and the majority of the large bones, I will go back later after the shore birds have worked over the mess.

Sam and I collected weight, measurements, blood, and parasites from Black-footed Albatrosses.

After Chow I walked to North Point to check for seals and make sure there were no eggs in the Frigate and Red-footed Booby area. There were no eggs.

I saw the injured seal 226 tonight again. As far as appearance there is no difference that I can see from two days ago. It is something that it is still alive.

Bob Chapman and I went to the Radar tower to feed the monkey tonight; we fed it an apple or at least part of the apple.

I saw 12 Brown Boobies on North Point, 4 were adults and 8 were immatures. This seems to be the pattern of more immatures than adults.

Banded Bonin Island Petrels.

D.L.
Stadel
1965

Journal

9220

23 January Saturday

Cam and I conducted the Shorebird, seal, and Albatross nest count today. I covered the beach in 2 hours. After the Shorebird count I skinned one stuff, a Herring Gull. After chow I overhauled the scooter. I banded Bonins.

I saw seal 226 on the beach but could not see any difference in its condition. The meat on the back may be getting darker but I could not tell.

24 January Sunday

Bob Standa arrived to the Pacific Paradise today and am I glad, we can get many things done that could not be done with two men.

I stuffed two birds this morning and then the plane came at 1400. Cam and I showed the island to him and generally acquainted him with the procedures on the island.

Cam found two Bonin Island Petrel eggs on the Shorebird census Saturday.

While doing weight and measurements on Black-footed Albatross we noticed that some of the birds had black and some white feathers at the base of the tail on top and underneath. Tonight Bob and I picked up 67 birds and read the band numbers and kept track of the color at the base of the tail, and whether the brood pouch was bare or covered and if there was any down coming in on the brood pouch. We handled only the birds not on nests, along southwest beach. Several things soon evident after handling this few birds, and these things will be cleared up as we progress with collecting all the returns on the island. Things I think will prove out: (1) There are two phases and all immature or rather sub-adult birds which have never bred have dark at the base of the tail. We banded 9 new birds of which eight were completely covered with down on the brood pouch and all of the 8 were dark birds the other bird had white at the base of the tail and the brood pouch was only partially covered with down. (2) I could feel a distinct difference in the weight of the birds which were dark, they were lighter.

DL
Stadel
1965

Journal

P 221

24 Jan [Cont]

(3) Not all birds which are dark are immature, since some birds which are sitting on nests are dark. The majority of the birds sitting on nests are light birds. (4) I feel that the difference in white and dark is age, the birds gradually change in color from dark to white as the bird gets older, but this is not consistent in all individual birds. (5) Birds which had their nests destroyed this year by the storm are developing down over the brood pouch. Several birds which were study birds are developing down over the pouch.

We set rat traps for the monthly grid trapping. We had to replace three traps which had been covered or blown away by the storm.

I saw a unique thing today, a change over in nest attendance of a Black-footed Albatross. While I was checking the nests red and green of nest number one changed. The chick had already hatched two or three days ago. Green was sitting on the nest and red was holding its head lower and pushing on the other bird. Both were making their egg call and Red slowly pushed green off the nest and took over the chick. The pushing did not take more than 2 minutes but I don't know how long the two birds had been sitting and calling to each other before the actual change over took place. Red is the male and green is the female.

25 January Monday

Today was rat trapping and the hardest day of the trapping. We started at 0730 and finished all but the rows before dinner, we completed the task about 1500.

There was a small rain the night before and the vegetation was wet. It was still cloudy when we started and only cleared up partially by noon. I handled the rats, Cam recorded and Bob weighed the rats. The rat data will explain any population make-up.

I checked the Albatross nests and worked on paper work in the afternoon. Bob and set traps after supper and made sure that all of the traps were in operation.

D. L.
Stadel
1965

Journal

25 Jan [Cont]

We found a Hawaiian Noddy while doing the rat trapping this morning, its wing was covered off. Collected Berlese samples from the South Antenna Rd.

Bob and I walked around South Point to pick up returns on Black-footed Albatrosses. I am sure now that all sub-adults are dark birds. All adults that have eggs are not light birds so it is a gradual change from dark to light that occurs over a period of years. I can distinguish difference in the amount of white at the base of the tail, but it may not change as the bird gets older.

26 January Tuesday

Rat Trapping again this morning and it was fun. There was a light rain during the night since we set the traps but I don't think it affected the working of the traps much. We had several traps which did not work because of sand under the treadle. There were other traps which were tripped but no rats. Yesterday I left all the traps open which did not work or were dirty and I felt that they would not work. I also fixed traps as we were trapping. We started at 0730 and finished at 1100. The morning was cloudy and comfortable.

I worked on data all afternoon trying to clean off my desk so I could see it. It rained after evening check so we did not try to pick up recoveries or returns.

While checking the Black-footed Albatross nests I observed a rare phenomena, the adult was standing up when I checked the nest and I could see the chick which looked like it was at least developed 60 days but the adult left when I approached the nest. The egg had maggots or some sort of crawling worms. Apparently the rotten egg was giving off some offensive element which made the adult not want to sit on the egg.

We set the rat traps in a slight rain hoping it would clear off and dry off before morning.

DL
Stadel
1968Journal

South west Beach

Black-footed Albatross Returns

1-24-68 65 Returns ; 9 Banded ^{Right Breast} Painted Red

1-25-68 36 Returns ; 13 Banded Green on R. Breast

We saw 8 Red ones

D.L.
Stadel
1965

Journal

27 January Wednesday

The wind last night blew out the Seayoko so it was pleasant trapping. We started at 0730 and finished at 1030. The traps were mostly in working order except for 4 or 5 traps. There were traps left sitting open with oatmeal in them and they were working but no rat was caught. The indian temperature was 50 and it was cold so that several rats were very cold and weak. We collected three rats which were dead in the traps or so weak and cold that they died when I placed them in my pocket. Three different rats recovered when I placed them in my pocket. One rat lay in my pocket for two hours and did not move but when we got back to the lab he was running around and so I placed him in a cage hoping it would recover, his right hind leg is stiff and he limps. This rat in the cage does not respond when I make the scamploud noise which makes rats jump. He just sits in the cage and shivers from side to side, he is very weak and I don't think it will make it.

I checked the Albatross nests and worked on data in the afternoon and hoped my sprained leg would heal before I had to trap again.

28 January Thursday

We trapped rats again from 0730 to 1130 and finished for the month. I could hardly walk from a sprain. I worked on Brown Booby data in the afternoon and wrote a summary of the rat trapping for Wirtz.

After Supper Bob and I went out to check the Albatross nests and then walked to the North Roost to check for Red-footed Booby and Great Frigatebird nests. I found trail that Warren King and Roger Clapp had cut and I had never found before. We could wander all over the roost and check for nests. There was one adult Female Frigate sitting on a nest of Trilabrus cisteoline, but there was no eggs, this was the only sign of a nest that we found.

I collected Berleze samples

D.L.
Stadel
1965

Journal

29 January Friday

We conducted the activity study all day and I of course checked the Black-footed Albatross nests. I went to the North Roost and cut trails and checked the roost for eggs and collected Perle's samples.

I saw a one-legged Black-foot Albatross today. Only the right leg remained and it could hop well enough to get air-born.

Bob Standen and I banded 100 Red-footed Boobies and Frigates, a 1 had to be caught by stomping through the Scaevola and we were tired the next day. We found a Red-footed Booby egg which had been deserted and was still warm but will be destroyed so this was the last night on banding in the North Roost.

30 January Saturday

We conducted the Shorebird and seal census and I wished I was home. Twenty-eight percent of the Laysan eggs have hatched out. I was in that mood again.

Bob and I went down to the Kure island Biltmore and improved relations with the crew and improved our moral.

31 January Sunday

I still had that mood today. I got a letter from Marilyn which was a surprise to me, in fact it knocked me off my feet with surprise and

1 February Monday

Worked on the report all day. Checked the Albatross nests and worked on the report during the evening.

Bob and I tried to go around North Point to pick up Black-foot and Laysan Returns but it rained and we came back after handling 37 Blackfeet and 31 Laysans.

2 February Tuesday

Worked on the report in the morning and filled out recovery forms until the plane arrived and then I worked on the scooter and cut trails through the Scaevola.

I checked the Albatross nests and looked for seal number 226 and found it at K 24. It had progressed to the point of the large hunk of meat is about to fall out I took pictures. The seal is getting better.

D.L.
Stadel
1965

Journal

P227

2 Feb [Cont]

Bob and I went out to band Redfoots, Boobies and Frigates on the south end of the island and we only picked up 7 birds to band and ~~we~~ collected 5 returns which was poor but the Scaevola was too tall and before we could get to the birds they flew. Can banded 30 Bonin Island Petrels.

3 February Wednesday

Bob and I surveyed the sewer line so the inspector Steve Masse could tell the Coast Guard District what the sewage problem was on Kure. There was an 8 and 1/2 inch drop in in 219 feet.

We tried to collect a Glaucous and a Glaucous-winged gull this morning but they flew.

Bob and I worked on a Microclimate study which he had set up. He had a accurate map of the island which we were marking on the map the locations which we took the relative humidity and temperature and soil temperature and wind direction.

We found a Bonin Island Petrel which had an egg in it when it died and the bird was eaten and the egg was sitting in the middle of a pile of feathers.

The evening was a new experience which all good personnel should have to go through. We had a tidal wave alert and had to spend on the barracks roof for three hours, I don't mind waisting the three hours but we did not get any birds banded or recover any birds.

4 February Thursday

Today we conducted the activity study and I filled out banding forms. I spent two hours talking to Luten and Steve Masse of the U. S. Coast Guard District, he is completely snowed and I liked him very much so it was not just politicking. He wants me to stop in and see him when I go through Honolulu. Phone 511-956

I worked on banding forms and completed them so they could go out on the plane with the report. Cookies from home for my birthday.

D.L.
Stadel
1965

Journal

P 228

5 February Friday

Bob and Overha led the scooter, sitting the points and plug and it surprisingly still runs. I worked on return forms for Black-footed Albatross and worked in lab in the morning on paperwork. In the afternoon Car and I went out and collected weight, measurement, ectoparasites and blood from Black-footed Albatross. I also checked the North roost for Frigate and Redfoot nests and eggs but did not find any. There were Frigates sitting on nests but no eggs.

Bob saw Seal 226 at north point so it is moving around the island now and there is a marked improvement in its general condition, I think it will live.

Bob and I went out to collect returns and band Laysan and Black-footed Albatross last night and finished off the string banding.

I checked the island for gulls and accidentals, there were none.

Bob and I picked up Laysan and Blackfoot returns and banded them and Red-footed Boobies and Great Frigatebirds.

6 February Saturday

Bob and I picked up returns from Laysan and Black-foot.

We conducted the shorebird and seal census and I worked on Return forms.

7 Feb Sunday

Sunday is a day to change the case so we speeded up and collected returns all day. We collected 253 and banded about 80 birds.

I recieved a letter telling me to leave today but I could not get ready to leave in two hours. /

I am so damn short I can't even type my notes. I may go home and not handle another bird for two weeks.

D.L.
Stadel
1965

P 229

Journal

8 Monday February

Bob and I picked up 146 returns from Laysan and Black-footed Albatross, and by the time I had recorded the date it was all the day gone.

We now have a total of 645 birds returned and 201 banded.

9 February Tuesday

We picked up returns today, we picked up 259 returns. Today gives us a grand total of 1046 returns and 294 banded this report period. This is a total of \$3956 1350 birds handled and I am getting tired.

10 February Wednesday

Bob and I picked up returns on albatross and I packed.

11 February Thursday

1 We caught another ~~one~~ Mus muscalus today which will be autopsied & saved for a skin and skeleton. I finished packing and left for Midway.

12 February Friday.

Took care of business on Midway and left on the 4:30 flight. I met Alan Anderson on the plane and showed him the island. I arrived in Honolulu at 22:30 and left for Seattle at ~~12:00~~ ^{10:00} 0900. Arrived in Seattle at 0900, picked up NAAH at 1100 & WOW.

D.L.
Stadel
1965

Journal

p 230

12-13-14 Sat, Sun & Mon

MAH and I had a ball
and I visited Dr. Orsini to
talk about Graduate School.
We rained all over Northwest
Washington

125

15 February Tue

in flight home

16 Feb Wed.

Worked at home

17 Feb Thursday

Worked at Home & went to Baldwin

18-19 February Friday & Saturday
Spent the days at Baker.

20 Feb Sunday

Visited Conrad at K-State

21-22-23

Mon Tue - Wed

Worked at home

24-25 Feb Thursday Friday

went to Kays to visit
graduate students and faculty.

D.L.
Stadel
1965

P 231

Journal

26 February Saturday

Flying to Seattle. Arrived
at 0300. Plane ticket \$108.52

28 February Sunday.

Traveled around north west
of Seattle with Marilyn
Hey. I had a Volkswagen rental
which cost only \$13.95 for the
days.

I saw a fox Sparrow,
Common ~~Tree~~ ~~to~~ Bruchtit,
Western Gull, California Gull,
Glaucous Gull, Glaucous
Winged Gull, Common Looster,
Surf Scoter, Pintail
Scaup, Salmon Shafed
Flicker.

My ticket from Seattle
to Honolulu cost \$110.17
and 14.44 for excess baggage.
I left Seattle at 16.55.

Spent \$1.50 in taxi.

I arrived in Honolulu at 17.00
2100.

D.L.
Stadel
1965

Journal

P 267

14 March Sunday

Species Account of Laysan Albatross

Laysan Albatross *Diomedea immutabilis*
We banded 2200 chicks
on the island and I think that
is between 70-80 percent of
the population. If you figure
65-85 of the chicks were banded
that would give a total pop-
ulation of maximum of 3384
and a minimum of 2587.

There seemed to be a larger
percent of the population that
was weak from not being
fed. The chicks in the *Eragrostis*
were often weak. Possibly
because of the parents not being
stimulated sufficiently by the
chick to land in the rough
ground and have trouble taking
off again. We most commonly
found Laysan chicks in the
open areas where there ~~was~~
was no *Eragrostis*, (only
Sporobolus indicus). Roger Chap

D.L.
Stadel
1965

P268

Journal

14 March Teontj Lisianski

and I banded 700-800 birds on the beach.

There are Albatrosses sitting all over the island which ^{run} when disturbed, they fall into Benin's hands which is possible frustrating to them. I don't think Laysan could do their country dance without difficulty. The Laysan with nest in ball Cragston may land at their nest sight but they appear to walk to the beach to take off again. We have seen Laysan opening in the Seacocks, it seems to be a road way to the beach.

There is probably a Laysan adult population on the island of 8-10 thousand. There are many more times this figure that use the island.

With all the Benin because it is hard for the

D.L.
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1965

Journal

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14/11 arch [Pont]

Lisianski

Black-footed Albatross; Phaethon nigripes

They nest primarily along the beach and in open sandy cuts ~~not~~ connected to the beach. I found only 4 or 5 chicks in Eragrostis variabilis away from the beach.

There are between 1800 and 2000 chicks on the island. We saw less adults than chicks on the island.

Bill Wisty picked up a Blackfoot that was banded on Kure.

Bonin Island Petrel; Pterodroma hypoleuca

There are a Blue-gibbion of them on the island according to Bill Wisty. Walking across the island is unbelievable. Every square foot is either covered with burrows or there are burrows under the surface, you step and fall through. You fall through about the point in your step when your legs is stiff & it goes until after several hours your feet feel like they would come off.

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Journal

14 March

Cont 3

Lisianski

There are birds over the island during the day & sitting on the ground. About 1600 they start to increase in number & they can be seen in large numbers flying over the water near the island. The sky is filled with them at night. & There are burrows all over the island.

There is no way to estimate the population but we banded 3 thousand birds in less than an acre & there were still unbanded birds & the change over rate would account for more. There must be over a million birds on the island.

There were eggs on top the ground which had been broken. I found broken eggs with chicks almost fully developed.

I heard birds running into each other in the air while I was banding at night.

They make the island very unpleasant to walk on.

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Journal

14th March [Cont]

Lisignetti

Wedge-tailed Shearwater Puffinus pacificus

Two separate birds were seen on the island, both at night.

Christmas Island Shearwater.

I saw 10 of this species the first afternoon sitting under the Scaevola in pairs. They were a common sight during the afternoon and at night. They were found all over the island where ever there was Scaevola.

I would guess there were 500 to 1000 birds.

Roger Clapp checked the brood pouches & found none bore so they are not on eggs.

I heard their mating call while brooding at night (they were flying over head) and during the day they would sit in pairs & call to each other.

Sooty Storm Petrel

I thought several times at night I heard their call but was not

DL.
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1965

Journal

14 March [Cont]

Lisiansti

sure and it could have been a
grey-backed tern.

Red-tailed Tropicbird; Phaethon rubricauda
Vin Hoeman banded 17 one
day, he found one on an egg.

I counted 20 over the island
wiggling their tails while flying
around (courtship flight).

Red-footed Booby; Sula Sula

Vin Hoeman found one egg.
There are adult males with
nest and ~~some~~ stay calling
platforms built but no eggs.

They nested and roosted in
small groups all around the
island using Scaevola.

We collected blood samples
and two returns but did not
band any of this species so
it is very hard to estimate the
population, I would ~~guess~~ guess
there are 2 thousand on the island
~~and~~ and probably more.

D.L.
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Journal

14 March [Cont]

Lisiansk.

Blue-faced Booby; Sula dactylatra
They are all along the beach.
Roger Chapp and I handled 230
one night & did not catch
but $\frac{1}{3}$ of the birds so we went
around the island. We only covered
 $\frac{3}{4}$ of the island before we quit
for the night. Just after we quit
we saw a club of 100 or more
birds sitting on the beach. I
would say there is a population
of ± 200 birds ± 200 .

There is one chick about 60-70
days old and the next oldest chick
is about 28 days and many of the
adults are sitting on very young
chick or eggs. 60-70% of the
breeding population is sitting
on eggs.

Brown Booby; Sula leucogaster
Seven was the most seen at
any one time. I found one sitting
on two eggs. There is probably
a population of 20-30 birds.
Roger saw one immature.

D.L.
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1965

Journal

14

March [Cont]

Lisianski

Sooty Terns ; Sterna fuscata

There was a population of about 5-10 thousand. They are flying in a large group over the island. They were sitting on the ground in open spots between Sporobolus indica. They were sitting around in pairs dancing around. The number gradually increased in number over the afternoon until the largest number was over the island at night.

There were no nest on the island.

Grey-backed Tern ; Sterna leucata

We banded about 400 of this species and all were sitting on eggs. We did not even touch the breeding population. There were nesting colonies all over the island in Eragrostis variabilis and in Scaevola taccada.

I would say there are at least 10,000 breeding individuals on nests and a total population of 15,000. Only about 75% of the population ~~was~~ were on nests.

D.L.
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Journal

14 March

Lisiauski

We found one small chick which could not be have been over 3 days old.

Common Noddy; Anous stolidus
I found only one nesting area west of the South Casuarina tree. It was under Scaevola on top of the ridge. There were from 50-75 nests. I found one dead chick which was about 3-7 days old. There are still birds on dancing around that do not have nests.

Hawaiian Noddy Terns; Anous minutus
about ~~50-75~~ 50-75% of the population are on active nests. Vin Hoeman found 4 or 5 chicks. They were nesting in the Casuarina trees. There were nesting colonies in Scaevola bushes all over the island.

There was a population of 2000 \pm 1000. The way they were scattered out I have no real idea of the

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Journal

14 March [Cont]

Lisianski

population.

Fairy Tern Gygis alba

There were nesting birds at various points over the island, in Casuarina trees and in Scaevola. I saw at least 25 nests. I would say the population was about 100.

Ruddy Turnstone Arenaria interpres

There were from ~~50 to~~ ^{70 to} 100 thousand. I would not even want to guess. We saw large flocks flying around over the island with at least ~~1000~~ ²⁰⁰ birds per flock. Perhaps this large flocking behavior is characteristic before migration.

The wings of 48 birds of this species were found under the Casuarina tree, presumably eaten by a Peregrine Falcon.

The birds were found during the day scattered throughout the island feeding. They were seen feeding on carcasses of dead birds and on broken eggs.

D.L.
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Journal

14 March Cont 7

Lisianski

Golden Plover *Pluvialis dominica*

There were several hundred of this species, probably about 4-5 thousand on the island.

They were found scattered throughout the island. Large flocks of up to 1000 birds were seen.

Sanderling *Quacethia alba*

Three birds were seen at once but possibly there were more on the island.

Black-bellied Plovers

Two were collected on the east beach by Roger Clapp.

Bristle-thighed Curlew

There was a flock of about 30 which hung out on the rocks east of the island along the beach. They were all along the beach and in the *Eragrostis* over the island.

Bill Wirtz saw three flocks of 30 or more birds fly by. He is sure they were separate flocks. There were probably 150 to 200.

D.L.
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1965

Journal

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14 March [Cont]

Lisianski

of this species on the island. They were tame and I took several good pictures of them.

Glaucous-winged Gull Larus glaucescens
Roger Clapp shot one near the south end of the island which was still alive but swimming away from us so we could not collect it.

When we were going dry working on Blue-faced Boobies we saw it on the beach and picked it up. It was still alive and we obtained a blood sample from it.

Penguin Falcon (Duck Hawk)

I was the only one that got a good look at the bird. It reminded me of a Sparrow hawk but it was too big. This is a life bird for me but it looked like all the pictures I have seen. It is possibly an immature because it was reddish brown. I was not positive of my identification.

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14

March

Lisianski

This bird was only seen on the island once flying down the beach. When it flew over the Bristol-thighed Curlew, I was watching flew in a compact group.

The Falcon was feeding in one of the Casuarina Trees. Roger Clapp found 48 Ruddy Turnstones, 22 Golden Plovers, 3 Grey-backed Terns and One Hawaiian Noddies.

When Shorebirds flew they would come up and fly low which is common for shorebirds that have been chased by a predator.

Great Frigatebird Fregata minor. There were about the same number of Frigates as Redfoots. There were about one half of the adults with inflated pouches, and the other half of the males were sitting on nest or the color of their pouches were not bright red. When the adult male is

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1963

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Journal

- 14 March Point Lisianski

is sitting on an egg and courtship is completed the color the pouch fades to a dull red.

There was a population of about 2000 on the island.

We spent the morning wandering around the island taking pictures and doing any thing we wanted to. We banded 400 Grey-backed Terns which were on eggs. We broke camp and left the island at 1500.

We spent the night getting re-organized to go ashore on Pearl and Hermes Reef. We went to bed at ~~2000~~ 2100.

I did not like Lisianski at all because of all the burrows, in other words the island sucked.

D.L.
Stadel
1965

Journal

P281

15 March Monday Pearl & Hermes Reef, Southeast Island

We arrived at Pearl & Hermes at 0730 while we were eating breakfast. The landing was smooth except we came over the reef.

The island is small but I like it.

Most of the afternoon was spent banding Laysan Albatross chicks and Ken Amernox helped Charley Williams collect blood samples.

Bill Wintz and I started mapping the island by using a compass. We have a east-west line over the island and every 100 ft we are measuring to the edge of the lagoon and also measuring the vegetation patches.

The hatching rains started at 1930 while we were still mapping the island. It rained all evening so we went to bed and worked on field notes hoping it would quit so we could do some work at night. It did not stop all evening and we

D.L.
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1965

Journal

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15 March Cont'd

had 30 knot winds. The tent about went into orbit. The tent held out the water but everything was damp.

16 March Tuesday South east Island

At exactly midnight the tent went into orbit and the canvas flap left its launching pad between the two tents but, fortunately it was a fizzle & did not go too far.

My god, what a three ring circus, I had not had that much fun for a long time, there we all were in sleeping clothes trying to hold down both tents and stake them better.

We buried all the stakes 2 ft & drove them into the coral. I thought I would die laughing seeing P. Vir in his B.V.D.'s trying to hold down one corner of the tent and it was lifting him off the ground. All the time

D.L.
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Journal.

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16 March

Roger Clapp was asleep and only helped with the last half of the fence. He heard talking or he would not have woken up. We were all laughing and doubtstaking all the corners of the tents in the rain. What a Blow down!

Ken & Rogers tent blew down two more times during the night.

I slept in mortal fear that the tent would come in on top of us again during the night while the wind blew & ~~and~~ it rained.

Oh! God it is a day.

Well it rained until 1200 and we huddled around the fire in a tent waiting for it to clear. Finally at 1230 it stopped raining for short intervals so we could work. We banded Haysen Albatross chicks and mapped the size and vegetation of the island.

There are about 20 Red-footed Booby nests on the island and one had a chick ~~20~~ 30 days

P.L.
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1965

Journal

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16 March [Cont.]

old which died while we were on the island. Many of the Redfoots are banded.

Eleventy-five percent of the Frigates appear to be on nests. Most of the nest were destroyed collecting returns and blood samples. There were 20-30 nests on the island. There is a population of 100 to 200 birds on the island.

There are about 30-50 Common Noddies and one was on an egg and many have nesting platform getting ready to nest.

We found Christmas Island Shearwaters on the island, also probably 12-20 birds on the island. They were sitting around on the ground.

Hawaiian Noddies are on eggs which we feel were laid while we were on the island. There are only few on eggs. There are around 50 birds on the island.

D.L.
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Journal

16 March [Cont]

We counted 25 Brown Boobies sitting on the reefs. There are probably 40 to 50 birds since there are 10 to 15 nests.

We banded 25 Wedge-tailed Shearwaters. There were probably 100 birds on the island last night and probably 1000 birds using the island.

We banded 35 Bonin Island Petrels so there were about 100 to 150 birds on the island. We found a young Bonin Chick. Their burrows were in dense vegetation where there was sufficient humus to support the sand.

We banded 35 Sooty Storm Petrels. Many had chicks which we banded about 10. There are probably 100 to 200 birds on the island and around 1000 or more using the island.

D.L.
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1965

Journal

Pearl & Hermes Reef

17 March Wednesday North Island

We left South east Island at 1100 for North Island, which is 10 miles across the open lagoon. It took 2 hours to get to South-North Island and 20 minutes more to go to North Island. We used an old ~~wrecked~~ wrecked Japanese ship on the reef, but we could not see it until we were an hour out of Southeast Island.

We pitched camp on North Island and started mapping and banding chicks.

An immature Brown Booby was seen and about 20 adults. There were no nests on the island.

There was a flock of Common Noddies of about ¹⁵⁰~~100~~ to ²⁰⁰~~150~~ roosting on the east side. They had young up to 40 days old, most being about a week old. There were only 4 chicks that we

old find and about ~~ten~~ ten on eggs.

There were 150 to 200 Hawaiian Noddies roosting next

D.L.
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Journal

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17 March [Cont] North Island

To the Common Noddies. There were nests but no eggs.

Twenty-two adult Red-footed Boobies were counted but only one was seen on an egg.

There were about ~~200~~ 150 to 200 Blue-faced Boobies on the island.

I saw a flock of 100 Ruddy Turnstones flying along the beach. I also saw 20 Golden Plovers along the beach.

Six Wandering Tattlers were seen along the beach.

There were about 40 Frigates Great Frigate Bird nests and a population of 150 to 200 birds on the island.

We banded Wedge-tailed Shearwaters, Bonin Island Petrels and Sooty Storm Petrels at night.

There were 4 Fairy Terns on the island.

D.L.
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Journal

Pearl & Hermes Reef

18 March Thursday North-South Island

We left North Island at 1000 and stopped at North-South Is. to band birds and map the island. It is an island 800 ft long with only about 300 foot having vegetation. The vegetation consists of *Boerhavia diffusa*, *Lepturus repens* and *Tribulus cistoides* and *Muehlenbergia* ^(SP). The island at its widest point is only 100 ft.

We spent 1 and 1/2 hours here before we finished.

There were 10 Blue-faced Booby nests and 30-40 adults on the island.

There were 14 Blackfooted Albatross nestlings and about 20 adults on the island when we arrived.

We banded 4 Laysan Chickens; there were 10 adults on the island when we arrived.

We saw one Wandering Tattler.

There were 2 seal pups and 23 adults.

D.L.
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Journal

18 March North-South Island

Vin Hoeman Collected Two
Gulls on the island which
I had shot at on North Island
and they left after I shot. They
appear to be Glaucous-winged
Gulls.

We mapped the island by
pacing off using a North-South
line.

D.L.
Stadel
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Journal

Pearl & Hermes Reef

14 March [Cont] Kittery Island

We left North-South Island at 1300 for South east and it took two hours to go across the lagoon where the crew from the Shearwater met us with water and food. We took down the camp left on Southeast and piled it onto our leaking raft so it could be sent back to the ship.

Then we took out for Seal Island. We passed Bird Island which had 3 sand spits around it and Sand Island which was a sand spit and it took 1 and 3/4 hours to get to Seal Island where we set up camp. Then Vin Hoeman, Bill Weitz and I went to Kittery Is. map and band albatross. Bill and I mapped while Vin banded.

There were 200 Blackfoot Albatross chicks and 7 Laysan albatross nests.

There were 10 Blue-faced

D.L.
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18 March [Cont] Kittery Island

Booby nests on the island. ~~There~~
a I saw a flock of 30 Ruddy
Turnstones fly over the island.
I did not see any vegetation
on the island.

Today for the first time
I noticed all the small shells
there are in the sand on islands.
Kittery Island had millions
of tiny shells mixed in with
the sand. They were of all
colors and sizes. Beauty cones
in large and small packages.

After finishing with Kittery
we went back to Seal Island.

D.L.
Stadel
1965

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Pearl & Hermes Reef

18 March Cont'd Seal Island

There were 18 seals with two dead pups. We had to bury one of the pups because it stunk & was close to camp.

There were 14 Blue-faced Booby nests and about 100 to ¹⁵⁰ ~~200~~ birds on the island. At night we banded 51 birds and collected 18 returns. Most were on the east end of the island on the sandy low part of the island.

We banded 40 Black-footed Albatross chicks on the island. There should be an adult population of several hundred (3-4 hundred) on the island but we only saw 50 birds at the nest. We collected 4 returns from this species.

There was a flock of 13 Bristle-thighed Curlews on the island, but they seem to move freely from island to island over the atoll.

There were Gray-backed Terns with eggs, only 15-20 nests with eggs. They nested on a rocky beach to the ~~east~~ east end of the island.

D.L.
Stadel
1965

Journal

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Pearl & Hermes Reef
18 March Cont 7 Seal Island

We collected a Brown Booby which had been banded on Kure. We collected 5 returns from this species, I have no idea of the population since there were no nests & I only saw 2 individuals myself.

We banded one Wedge-tailed Shearwater and I saw one other.

We banded 33 Bonin Island Petrels and collected 2 returns. There was one egg found that was pipped. There were never more than 10 birds in sight at night. There was probably a total population of 3-4 hundred nesting the island and probably even more.

Banded 2 Sooty Terns, there was a flock of 1000-2000 over the island.

Banded 5 Common Noddies. There were 100-200 present.

also banded 2 Ruddy Turnstones of a population of 50-100.

Went to bed early? Rain

D.L.
Stadel
1965

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Journal

19 March

"Pearls & Hermes Reef"

Wes today a day or was it a night more. I guess the night more part of today started at midnight yesterday or this day and it ended at 1830 when we finally left the rubber raft and boarded the dhonukater. I rained all night last night and I was sleeping under a flapping, (so called window) that wonderful tent that I would like to take back to the dealer and stick you know where) piece of canvas. When it came up it let in rain & then came down with a noise I don't know if I did not sleep or if I just woke up between each noise. Then there is the matter of being damp and having rain falling on one.

The episode of trying to sleep when I awoke at 0700

D.L.
Stall
1965

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Journal

19 March. [Cont.]

because I could not take it any more and the tent was falling down. One corner of the tent tore off and Ken Amerman & I ended up holding up the tent (of course it can be understood that it was raining all the time). The tent falling down was such a minor thing after having to put it up 50 times in 182 days. 1

We all got wet playing with the tent and then we sat around the tent all wet from 0700 until 1130 when it quit raining. I was as miserable as a human being can be without being sick and I could see that the other four felt the same as I did. We had up to an inch of water on the tent floor.

We mapped Seal Island and picked up camp to move on to Grass Island. The was

D.L.
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1965

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Journal

19 March [Cont.]

in the lagoon were up to 5 ft. and behind us so it was not too bad. We stayed on Grass Island and banded 300 Laysan chicks and 100 Black-footed Albatross chicks.

After being on Grass for two hours we left for Southwest which only took us 45 minutes. Then we called the Shearwater again to ask if we could get through the opening in the reef east of Southeast Is. They replied we could.

The ride in the raft was wet and cold but bearable.

We were about one mile from the opening when our motor quit and would not start again. We lost communication with the Shearwater so there we were drifting toward the reef, we dug out the oars and paddled for all we were worth and up to the time we actually made it through the reef we did

D.L.
Stadel
1965

Journal

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19 March [Cont]

not know if we would make it or smash into the reef. We must have paddled for one-half to an hour and we were about frozen and cold from ~~the~~ taking in water.

I don't know what would have happened if we would have hit the reef but everyone seemed concerned. I had a life vest & had very little personal gear and was not afraid of the reef. When we came into Southeast Island we did not hit the channel and went over the reef.

It was a very exciting and busy experience which one looks back on but hopes never happens again.

We paddled ~~on~~ one to two miles with 700-1000 pounds of gear in a rubber raft. The sailing ship felt good.

What a day this was! It is impossible to describe the experience of paddling and perhaps to save future injury.

Stadel
1965

Hawaiian Lee ward Trip

Journal

Cont

Pearl and Hermes Reef

	Laysan Is.	Misaki Is.	Pearl and Hermes Reef					
			Southwest	North	North-South	Kittery	Seal	Gross
Laysan Alb Nestling	5							
Black-foot Nestling	15000	2,200	4,500	700	4	7	89	300
Wedgetail	24		48	36				
Bonin Is. P.	2,396	3000	25				33	
Sooty Storm P.	99		45	26			6	
Red-tailed Tropicbird	1	18	3	2				
Great Frigatebird		1	5	10				10
Red-footed Booby	243		1	5				1
Blue-faced Booby	30	101	30	5			10	
Brown Booby	196	212	5	7	4		52	
Sooty Tern	331	104	1	1			6	
Grey-backed Tern		374					5	
Common Noddy				7			5	
Fairy Tern	24	10						
Laysan Teal	25							
Golden Plover	11		1					
Ruddy Turnstone	7						2	
Bristle-thighed Curlew	12	3						
Christmas Is Shearwater	2							
Total Banded	18,088	5,817	4,637	1,199	24	83	236	489
Total Returns	124	158	97	55	1	0	30	65
Total Number banded in 11 days	130,573							
Total Returns	480							

D.L.
Stadel
1965

Journal

P288

20 March Saturday

We spent the day drying out gear and re-packing. We cleaned the storeroom.

I saw Sooty Storm Petrels off the ship when we were near Laysan Island at 1600. I saw 3 or 4 later in the afternoon.

I talked to the purser, who is a very interesting individual, he has lost his business & is staying over in life by making money working on the Shearwaters. He's lived in New Zealand for three years and has traveled over much of the world.

21 March Sunday

I stood watch from 1000 to 1200 and from 1900 to 1600. There were not many birds but we did see 110 Sooty Terns in two flocks close together.

I saw a Sooty Shearwater which was a new bird for me.

D.L.
Stadel
1965

Journal

22 March Shearwater

I stood watch from 0630-0800, 1000-1200 and 1600-1800.

We saw a large number of wedge-tailed Shearwaters considering the number of birds seen on the islands during the trip.

Early in the morning from 0700 to 0900 and at evening from 1700-1800 are the times when most birds are seen. It looks like there would be a constant number all the time but during the mid-day hours few birds are seen.

23 March Shearwater

I saw a ~~gray~~ Blue-grey Noddy and a mottled Petrel.

I stood six hours of watch. There were birds and water out there today. Bore!

D.L.
Stadel
1965

Journal

P 301

24 March Wednesday

We arrived in port at 0800 and spent the day unloading the ship and I bought field clothes.

We had a meeting at Dr Ely's tonight to discuss project policies.

25 March

I spent \$25.83 on paint for Kure today. I also spent \$32.06 on parts for the scooter.

I rode around town in the morning with Mrs Ely and worked on the landing forms for the Laysan trip.

Expenses

\$7.23

Coat

6.81

Notbooks

8.27

Tennis shoes

3.08

Hat

11.90

Rain Suit

3.80

Sun glasses

25.83

Paint

32.06

Scooter parts

D. L.
Stadel
1965

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Journal

26 March Friday

Today was a day to relax. Larry Huber, Roger Clapp and Paul Woodward and I went deep into the mountains to look for birds.

There were Japanese White-eyes all over the mountains, as well as in trees in the lowlands. The species has taken over all habitats on the island except where crops are planted.

We saw a group of Black-crowned Night Herons at a mud flat east of Pearl City.

We saw or two Little Egrets at the same mud flat that we saw the herons at.

There were Indian Myiarchos along the roads all ~~along the~~ day. They seem to have a distribution all over the island where man has disturbed the natural habitat. We did not see them up in the mountains.

Don
Stallard
1965

Journal

p 303

26 March Cont 7

We saw Reinards (Lonchura
sanctulata) along a sugarcane field and in trees. There was a mud flat on the far side of the forest. I did not get a good look at the bird through field glasses.

I saw one House Finch (Carpodacus mexicanus) up in the mountains and I saw two yesterday eating in a palm tree.

I saw one Red-Crested (Brazilian) Cardinal (Paroaria cristata).

We saw 50-100 Red-billed Leiothrix whenever up in the mountains. (Leiothrix laticauda)

We saw Barned Doves (Geopelia striata) They were seen every where we went except up in the mountains.

We saw Spotted Dove (Streptopelia chinensis) everywhere except the high mountains. They were not as common

DL:
5-23
1965

Journal

26 March [Cont]

as the ~~sp~~ Banded Dove.

We saw House Sparrows in town and associated with civilization.

We saw Apapane in the high mountains. (Himatione sanguinea).

We saw an Amakihi but I did not get a good look with glasses.

~~Haber saw an Iiwi up in the mountains~~

We saw an Amakihi Loxops virens

27 March Saturday

I read "Pepton Place" at the hotel & moved around.

28 March Sunday

Five of us went to the Zoo to mess around. I started reading "West Smith". I started running again to get rid of energy.

On
Stadel
1965

Journal

29 March Monday

Ken Amerman and I worked on
banding forms for the Leeward Trip.

30 March Tuesday

Ken Amerman and I worked on
banding forms and return and
recovery forms.

Expenses

.40

Scotch Tape

\$4.12

Swim Suit

3.88

Shorts (jockey)

31 March Wednesday

Ken Amerman and I worked
on banding forms for the Leeward
trip.

\$33.92

Food on Shearwater

.45

Soap for Shearwater (birds)

1 April Thursday

Ken Amerman and I finished
the banding and return forms
for the Leeward Trip. I am
around finishing shipping gifts home
and write 4 letters.

D.L.
Stadel
1965

A + Sea for April P.306

Journal

Pat Gould
Ken Amerman
Dayle Husted
Paul DuMont

2 April Friday

We were all on board by 0800 and left Pearl Harbor at 0900. Everyone had been out late last night except myself so much of the day was spent sleeping. We had informed watch and did not shoot at any birds since we were close to the islands of the chain.

I enjoyed the day and think I will adjust to the at sea routine.

There were large numbers of Bulwer's Petrels around the ship all afternoon. We saw a feeding flock of 70 birds. This was the first chance I had had to get a real good look at them. They seem to have a group of underwing coverts which are lighter in color. I kept getting a flock of ten. The bird is a dark brown. The flight seems to be half way between that of a Shearwater and a Storm Petrel.

D.L.
Stadel
1865

Journal

P307

2 April [Cont]

There were a steady stream of Sooty ~~then~~ Shearwaters going north all day. Never more than 4 or 5 in view at once.

I saw about 10 Christmas Island Shearwaters today. They fly like they had jet propulsion. They have a short stock body and take several [4-5] sharp stiff winged beats and then glide for 20-50 ft. They are darker in color than the Bulwer's ~~and~~
~~Christmas Island~~

We saw 1100 birds today. Most were close to Ohau. Near Ohau we saw several feeding flocks of 100 birds, mostly Common Noddies.

We saw 5 whales that I know of.

3 April Saturday

It rained most of the day and the ship rolled terribly. I had that feeling and could not eat dinner.

D. L.
Stadel
1965

P 308

Journal

3 April [Cont]

I spend \$9.80 of my own money
for the Shearwater food Bill
for the Recwood trip
\$9.82

4 April Sunday

I skinned a Leach's Storm
Petrel and stored watches.

I saw a Juan Fernandez
Petrel today. I read until my
eyes gave out.

5 April Monday

I read and finished "Bone & The Wind," it was really great.

I got a real good look at
a Juan Fernandez Petrel today.
We collected a Sooty Tern.

6 April Tuesday

Today was exciting. Pat
Kouss and I were on watch early
and Doyle Husted was up with
us. We saw a flock with 10
Juan Fernandez Petrels, 2 Newell's
Shearwaters and a Pale-footed
Shearwater, two Wedge-Tailed
Shearwaters and 5 Sooty Terns.

D.L.
Stadel
1965

Journal

6 April [cont.]

Just before we saw the flock I saw a Phoenix Island Petrel.

We collected 3 Blue-faced Boobies, 2 dark phase Wedge-tailed Shearwaters. The Blue-faced Booby was banded with a green anodized band from Kure.

The Blue-faced Booby from Kure was molting into adult plumage. The head had about 5-10% ~~by~~ white feathers coming in to replace the brown plumage.

D.L.
Stadel
1965

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Journal

7 April Wednesday

I spent most of the day in the lab cataloging Blue-faced Boobies. Doyle Husted collected 6 Boobies and I collected 4 blood samples and parasites and the ship was taking 30° rolls so it took me an hour a bird to catalog them. Three of the Blue-face collected were banded.

I got a good look at a Phoenix Island Petrel.

8 April Thursday

We collected nothing, we were on a course of N~~W~~W and nothing came near the ship.

I put up a Blue-faced Booby after supper & worked on it at other times of the day. It was rough today.

It was rough and we slept very little.

9 April Friday

We are having engine trouble so are heading back to port.

D.L.
Stadel
1965

P312

Journal

9 April

at Honolulu or Johnston to get more oil. It was very rough all day and night.

We saw very few birds today.

I did see a Mottled Petrel.

10 April Saturday

a very dull day. I put up a blue-faced Booby. Read on "Fails of the South Pacific."

11 April Sunday

We collected a Sooty Tern and a white-tailed Tropicbird, which Ken and I skinned. Dull day otherwise.

12 April Monday

We collected nothing today so Dayle Husted thinks it was a terrible day plus the fact Dayle says he was chased around the ~~low~~ flying bridge for 5 hours by P.D.

D.L.
Stadel
1965

Journal

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13 April Tuesday

Gayle Hunter and I collected two birds today, a Sooty Tern and a Sooty Shearwater.

We met the milkboat from Johnston with oil and Karl 'n' usinger was aboard.

The Sooty Shearwater looks about like a big Wedgetail. The feathers are dark brown and the under secondary coverts are white. The bill is dark and light brown striped and the lower edge and posterior part of the lower mandible is light grey. The pigmentation on the feet is the same as in the Wedgetail except the colours are brown and light grey.

There were large numbers of Sooty Terns around the ship all day.

We chased several flocks today. The one largest flock was spread out ~~long~~ over about one mile long and a half mile wide strip.

D.L.
Stadel
1965

P 314

Journal

13 April [Cont]

The flock was moving all the time it was feeding. We followed it for $\frac{1}{2}$ hour at 10 knots and it was always just out of gun range. Sooty terns were over the front of the ship and we could have shot immature or sub-adult Red-footed Boobies. Pat Gauld wanted to collect the rare birds. The flock was feeding since birds were seen diving to the water. There would be birds spread out & then a group of 50 to 100 would come into a compact flock & feed and then disperse again.

Sooty Tern 450 ± 50 2 with Red tags

Noddy Tern 10 ± 3

Red-footed Booby 18 ± 2

Sooty Shearwater 3

Wedgetailed Shear. 25 ± 5 One Red tag

The flock was seen at 1507

The second flock was seen at 1615. and followed for 20 minutes. until they dispersed.

D.h.
Stadel
1965

P 315

Journal

13 April, 1965 [Cont]

Sooty Terns 150 ± 15

Common Noddy 5 ± 1

Sooty Shearwater 2 ± 1

Wedge-tailed Shear 4 ± 1

Red-footed Booby 15 ± 2

Blue-faced Booby 2 ±

We were trying to collect a Sooty Shearwater so we did not shoot any Terns when we could have.

at 1814 we spotted the third flock. It was feeding in the same manner of being spread out & then coming into a compact flock when the fish came to the surface of the water. We followed the flock for 40 minutes we collected the Sooty Shearwater from this flock.

The Sooty Shearwater we collected (Husted & myself) was sitting on the water & Husted saw it trying to take off when it was 50 ft in front of the ship, he hit it twice and then I shot it 3 times. All

DL-
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1965

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Journal

13 April

shots went into its back and all the time we were turning the ship around the bird was flapping its wings and shot it again when we came within range. The bird had 5 patterns from #4 shot of a 12 gauge shotgun and it was still sitting on the water flapping its wings.

14 April Wednesday

Today we had fun.

Mr Ashton DeLoe Husted and myself went out in the ten foot boat to put out oil and sit off to see if we could attract any birds to collect. We used Wesson oil and castor oil (5 gallons of Wesson and about one gallon of Castor oil).

After we put out the oil we drifted around to oil to see what we could attract. We saw 5 Leeches Storm Petrels and 5 Sooty Terns and 4 Sooty Shearwaters and 1 Wedge-tail and one Pterodroma.

The Sooty Shearwaters seemed to avoid the boat and we only saw one close enough to shoot at and the noisy wedding kept us from shooting more than once.

One Wedge-tail came close to the craft but it did not catch us by surprise so we only shot at it once.

The Sooty Terns were all far from the craft.

DeLoe shot at all the Leeches Petrels and hit three but did not kill them. They would be almost on the craft before we would see them. They did

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P 317

14 April [Cont]

not see any Jacques from the ship. 27 so apparently the oil attracted these species.

We missed the oil but it spread of its own accord in two and one half hours so it should just be put over the side of the craft while it was sitting still and the oil should wash it all away.

The birds were hard to see while you are sitting so low to the water, thus they would often be within gun range before we saw them and by the time Doyle took aim they would be out of range. We sit so low in the boat that Doyle almost blew off the bow of the boat when we turned over a wave and he was not even aiming at his gun. They are going to build a shooting platform so we can stand up in the boat while shooting and observing and we should be able to spot the birds much better.

MOST DEFINITELY THERE SHOULD BE A REAR VIEW TEAM ONE PERSON IN THE CRAFT WITH A GUN SHOOTING AT BIRDS. THE MOVING OF THE CRAFT WOULD MAKE IT TOO DANGEROUS AND SOMEONE MAY GET SHOT.

The boat handled well and I think they will receive their money's worth out of the ship if we ever get into a flock.

There were swells about 6 to 8 feet high and the boat rode over them well and I don't feel that you could hold the gun steady to shoot if the sea was any rougher, and it would be much better if there were calm seas.

I will never forget the glee in Mr. Lightons eyes when he was checking out the boat to see how fast and how well the craft would run.

We collected two Red-footed Boobies and one of which Ken dropped on the flying bridge. Both birds were immatures.

We saw two feeding flocks about sundown. The first flock was seen at 1740 and consisted of:

Sooty Terns	456	1
Cooks Petrel	2	
Sooty Shearwater	3	

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1965

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14 April [Cont]

The first flock was feeding on flying fish and moving rapidly from spot to spot to be over the sunken fish.

The second flock we spotted at 1810 and it consisted of:

Sooty Terns 40.3

Shearwater / Petrel 2

The flock was flying high but occasionally some of the terns would drop down to the water, we did not get close enough to shoot at any birds.

15 April Thursday

I added another bird to my list and did not kill it. I hit a Mottled petrel with two shots and Dave hit it once but it flew away. In the morning we both hit a Red-tailed Tropicbird and it could not rise more than ten feet of the water but it flew away. I also had a Leach's Storm Petrel fly through my pattern and it did not kill it. I am sure all three birds were hit but we could not bring them down.

We did not see any flocks today. We saw Mottled Petrels all day and not a single Sooty Shearwater. We saw 17 Mottled and 7 Sooty Shearwaters go over the water. The Mottled flocks the place or migrated further west.

I think I saw a Red-footed Shearwater, my back was to the sun and I did not see any white under the wing when it was turned up.

16 April Friday

What a day! We collected 18 birds and skinned 10 of them. It was 0700 before I finished skinning down the blood.

We saw a total of 542 birds and 350 of them were in flocks. There was a total of 15 species seen. We saw a total of 6 flocks but only three were feeding at the time seen.

We saw 405 Sooty Terns and collected 14 and two had orange streamers and were banded.

DL.
Stadel
1965

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Journal

16 April [Cont]

The first flock consisted of 11 Sooty Terns flying Northwest together. The second flock was a Sooty Tern trailing Southwest at 0831.

The third flock consisted of 4 Sooty Terns and two Wedge-tailed Shearwaters. At 1042 we saw the fourth flock which consisted of 26 Sooty Terns and one Sooty Shearwater. They were feeding locally or flying high over the water and one Sooty Tern

At 1405 the fifth flock was seen feeding and one Sooty Tern was collected which was banded and had an orange streamer. The flock consisted of 26 Sooty Terns and one Wedge-tailed Shearwater.

The sixth flock was seen at 1800 feeding actively so we put the small craft over the side to try to get in the middle of the flock. The flock consisted

of: Sooty Terns	225 ± 25
Wedge-tailed Shearwater	4 ±
Frigate bird	2
Sooty Shearwater	4
Red-footed Booby imm.	3 ±

Doyle collected 6 Sooty Terns and one had an orange streamer and was banded on Johnston Island.

The flock was actively feeding. They would be spread out and then come together into a concentrated flock or aggregation to feed when the fish would come to the surface. The flock feeding reminds me of a number of beetles rolling around in a flat container except the birds are drawn together where the fish are.

We could see the Sooty Terns diving into the water from the Shearwater. Doyle was in the small craft chasing the flock. He could get close to the Sooty Terns but the Sooty Shearwaters were always just out of gun range.

The small craft worked very well since they put the round hulls down in the boat so Doyle could stand up while they were moving to fire. From a distance it looked Doyle was running on the surface of the water.

P.L.
Stadel
1965

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17 April Saturday

We collected two Red-tailed Tropicbirds and one white-tailed, one Blue-faced Boobies and one Leach's Storm Petrel.

We were running into the wind all day and we only saw 31 birds. It doesn't make sense that on the 16th we would go 542 and now we move 50 miles and on the other way and only see 31. I don't think we can see the birds on some unknown reason.

We are flying. We are the same distance from our island as the birds should be here but we don't see them. We were going north east in the mid today.

One thing interesting about today was we did not see any Sooty Terns, but the uncommon birds we saw ~~it~~ about the same number. We did not see any flocks in fact we only saw 2 Cook's Petrels and otherwise all sightings were single birds.

I finally collected a Leach's Storm Petrel and it is about the 10 bird that we are sure we hit of this species but we could not bring it down. I broke its wing or it would still be flying.

I started an underwater catalog for the at sea cruises and got all the data up for this trip and after I leave they can do with it what they want.

I hit and collected ~~one~~ but did not even slow it down.

18 April Sunday Easter

We had another good day collecting today. 16 birds and 13 from the craft. All were Sooty Terns except for a Robin-tailed Petrel and a Cook's Petrel. Most collected from two separate flocks, three and ten birds respectively.

The first flock had about 120 birds and I collected three Sooty Terns before the flock broke up. They were feeding but scattered $\frac{1}{2}$ in all directions when he started shooting. Birds:

Sooty Terns	125+ 20
Fairy Tern	1
Frigatebird	1
Sooty Shearwater	1
Blue-faced Booby	1

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Journal

18 April Sunday

Before 14/ we spotted the first flock we were sure it was there because of the Sooty Terns going by all going west and we finally spotted the flock in the southwest moving east. Sightings prior to seeing the flock:

0010	Sooty Terns	5	SW
0012	Sooty Terns	2	W
0014	Sooty Terns	2	W
0015	Sooty Terns	2	W
0016	Flock		

This is a common thing when you are near a flock to see Sooty Terns going in the direction toward the flock. By watching Sooty Terns we can tell what direction to keep a sharp look-out for flocks.

This flock was feeding.

The second flock was sighted at 1705 but there were no Sooty Terns going by to warn us that there was a flock anywhere near. They were actively feeding in fact we saw a Sooty Terns dive and catch a fish 6 inches long and rise up and fling white as it ate it. The flock was moving around all over in front of the ship while we sat and watched. I started phasing them in the cockpit. I started collating Sooty Terns in about an hour. Flock consisted of:

Sooty TERNS	100± 10
Sooty Shearwaters	1
Green Island Petrel	1

The flock was following fish all over wherever they would come to the surface to feed.

19 April Monday

It is now the 21st and I have not had time to write notes or think for the last three days because of working on bird skins.

This morning I was the only one up and there was a Common Noddy sitting on a log when the ship came by and I shot it.

The first flock consisted of:

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19 April [Leont]

Leaches	1
Bonin Island Petrel ?	1
Sooty Tern	15+ 2
Fairy Tern	1

There was a school of murre under the flange and it was moving rapidly and we could not get into the flock with the 8" meter.

The second flock was different:

Sooty Tern	45+ 3
Jaeger	2
Sooty Shearwater	4
Bonin Island P	1
Pale-footed Shearwater	1
Shearwater/Petrel	3+
Blue-faced Booby	2
Wedgetail	2

20 April Tuesday

Worked on skins and in the lab all day and did not stand watch.

The flock seen consisted of:

Sooty Tern	275+ 25
Wedgetailed Shearwater	5+
Pale-footed Shearwater	1 collected
Sooty Shearwater	2+
Jaeger (small)	1
Leaches's Storm Petrel	1

21 April Wednesday

I am pooned from putting up six birds and skinning 17 birds with Her 'gun'. The day was a busy day for flocks since 4 were seen.

The first flock seen at 0840 consisted of:

Sooty Tern	12
Shearwater/Petrels.	3

The second flock was seen at 1035 and at first was thought to be only 35 birds but as we got close to the flock it was observed there

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Journal

21 April Cont

65 Sooty Terns instead of 35. We collected two Sooty Terns and one Wedgetail. The flock consisted of

Sooty Tern 65 ± 5

Wedge-tailed Shearwater 7

At 1515 we got the next feeding flock which was feeding on a fish school which was breaking up. The flock broke up into 3 or 4 small

groups. A Y Skua was observed chasing a Booby. The Skua was all dark with white in the wing it was the size of a Booby. Flock:

Sooty Tern 75 ± 10

Leach's Petrel 2

Sooty Shearwater 1

Wedge-tailed Shearwater 5

Skua 1

Booby 1

Red-tailed Tropicbird 1

The next flock was seen at 1700 and we chased it with the ship and collected a Frigate and

Wedgetail. The flock was breaking up and reforming and it was over. Flock:

Sooty Tern 75 ± 15

Wedge-tailed Shearwater 25 ± 5

Pale-footed Shearwater 1

Sooty Shearwater 5

Frigatebird 2

Bonaparte Jaeger 24 adult and two

I hit a Bonaparte Jaeger today but did not kill it.

22 April Thursday

Ken and I put up 17 birds and cataloged and were neared when we finished. We saw three flocks and the composition of the flocks has changed since we are in a new area.

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Journal

22 April [Cont]

The first flock seen at 0745 consisted:		
Sooty Tern	20	5
Wedgetail	5	or 6
Tern	1	
Common Noddy	1	
Sooty Shearwater	2	
The second flock consisted of : 0835		
Sooty Tern	13	3 collected
Wedgetail	5	
Bulwer's	1	collected
The third flock consisted of: 1020		
Sooty Tern	15	7 are collected
Wedgetail	4	
Shearwater/Petrel	1	Audubon's or Newell's
Pink Tern	1	
The last flock seen at 1640 consisted of:		
Sooty Tern	50	25
Wedgetail	50	10
Pale-footed Shearwater	1	
Bulwer's Petrel	2	
Booby's Storm Petrel	1	
Grey-backed Tern	1	
Pink Tern	1	
Common Noddy	10	1
Red-footed Booby	1	

23 April

It has been a good trip and much was accomplished. We collected 101 birds and put up 73 of them and have several others skinned. I started a Bogged and an ectoparasite catalog and started putting labels inside whirl packs with the stomach contents.

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April At Sea

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23 April

Journal

	2nd	3	4	5	6	7	8	9	10	11	12	13
Black-footed Albatross	3	1										
Wedge-tailed Shearwater	563	114	13	11	38	7	5	3	5	78	9	42
Christmas Is. Shearwater	8											
Bulwer's Petrel	134	1	4		5	3	5	1		12	3	
Red-tailed Tropicbird												
White-tailed Tropicbird			1						1	2	4	1
Blue-faced Booby					5	18						4
Brown Booby	1											
Red-footed Booby	15											47
Great Frigate bird		1							1	1	3	2
Sooty Tern	43	228	5	19	87	40	17		4	321	318	1472
Common Noddy	133											22
Hawaiian Noddy	5											1
Pomarine Jaeger	13								1			
Sooty Shearwater	51	108	74	44	135	86	159	83	88	256	84	14
Leach's Storm Petrel	3	11	11	17	9	4	5	10	5	7	5	1
Red Phalarope	2	1										
Fairy Terns		3		1	2				2		2	
Grey-backed Tern	1											3
Juan Fernandez Petrel			1	2	34	14	1					
Kermadec Petrel				1	1							
Audubons Shearwater					17	2						
Cook's Petrel					1							
Mottled Petrel								1				1
White Neck P.		1										
Phoenix Is Petrel					4	2						
Pale-footed Sh					2							
Sooty Petrel		1				1		1				
Nerolds P									1			

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April at Sea Journal

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23 April

	14	15	16	17	18	19	20	21	22	23	24	25
Black-footed Albatross												
Wedge-tailed Shearwater	7	5	9		3	7	15	50	111			
Bulwer's Petrel						1		1	48			
Red-tailed Tropicbird		2	3	2	1	1	2	2				
White-tailed Tropicbird	2	1	1	1	2	1						
Blue-footed Booby			1	1	4	5		1	1			
Black-footed Booby	2		4						4			
Great Frigatebird	1		2		1	1	1	3	2			
Sooty Tern	88	7	485		389	82	357	241	115			
Common Noddy							1		11			
Sooty Shearwater	22	7	7	1	3	12	2	10	6			
Mottled Petrel	1	17	3	5	1							
Cook's Petrel	3	10	2	3	2	2	1					
Leach's Storm Petrel	9	6	6	5	3	6	2	6	19			
Juan Fernandez Petrel		2	2	7	1							
Fairy Tern					1	1		3	3			
Pomarine Jaeger								2				
Skua								1				
Christmas Is Shearwater									1			
Gray-back Tern									1			
Slender Bill Sn							1					
Pale-footed Sh.						1	1	2	1			
Bonin Is. Petrel			1	0	1	8						
Bulwer's						1						
Common Noddy						1						

D.L.
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April at Sea

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23 April

Journal

Date	Day time Miles	# Hours	# Birds	Birds Per Linear mile	Species	Location
02	91	9.1	1118	12.29	14	Oahu to 20° 05' N / 20° 05' N X 156° 54' W
03	105	12.2	484	4.61	11	18° 53' N X 155° 04' W to 17° 00' N X 154° 56' W
04	109	12.2	117	1.07	7	14° 58' N X 154° 25' W to 13° 45' N X 154° 03' W
05	107	12.2	122	1.14	8	12° 39' N X 151° 04' W to 11° 2' N X 150° 28' W
06	116	12.3	429	3.70	13	9° 59' N X 151° 10' W to 8° 40' N X 152° 35' W
07	65	12.3	239	3.68	10	8° 00' N X 153° 20' W to 8° 46' N X 153° 28' W
08	122	12.4	296	2.38	6	9° 25' N X 155° 05' W to 9° 34' N X 157° 05' W
09	109	12.3	133	1.22	6	10° 34' N X 157° 2' W to 12° 23' N X 157° 22' W
10	121	12.4	157	1.30	9	14° 15' N X 157° 19' W to 15° 5' N X 157° 53' W
11	123	12.6	904	7.35	7	16° 00' N X 160° 00' W to 16° 11' N by 162° 07' W
12	136	12.6	473	3.48	8	16° 15' N X 164° 10' W to 16° 25' N X 166° 50' W
13	117	12.5	1630	13.93	13	16° 53' N X 165° 52' to 15° 50' N X 166° 10' W Johnston @ 1300
20	122	12.5	385	3.16	9	17° 16' W 171° 09' W to 16° 08' W 17° 52' W
21			328		12	
22						
23						

D.L.
Stads.
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Journal

23 April Friday

We arrived in port at 1700 and took
1½ hour to get back to the hotel

24 April Saturday

We went shopping for supplies
~~.50 bus fare~~

25 April Sunday

Sleep & worked on mail.

26 April Mon.

We worked at the Shearwater all day.
I worked on labels and labels for
the birds. Ken & Paul worked on putting
up skins. Expenses

\$.75 Bus ~~fare~~ + ~~car~~

27 April Tuesday

We worked on the Shearwater all day with
the bird specimens collected on the April at
sea. Expenses

\$ 1.00 bus tickets

\$ 35.00 Food Bill on Shearwater

28 April ~~Friday~~ Wednesday

We finished up skinning birds and
pluffings.

29 April ~~Saturday~~ Thursday

Shoes \$ 7.76

Hat \$ 2.43

Socks 3 63

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Journal

7 May Friday

Fred Sibley
Bob Fleet

Bob Long
Larry Huber
Bob Stander
on cruise

OH! I think it was a morning
and then I ran after work and
pain. Expenses:

\$1.89 Sun glasses

8 May Saturday

Fred Sibley, Bob Fleet and I
loaded the Oriskany ATF for
the cruise. I went to bed early.

9 May Sunday

Fred & Bob went to the ship
to work and I worked in the
hotel room on blood vials.

Fred and I went down and
walked along Waikiki beach to
get our eyes filled for the next
two months. We saw all kinds of
things? Fred and I went to "The Sound
of Music" with Julie Andrews and
Robert Plummer.

Fred Sibley

10 May Monday

Larry Huber, Bob Fleet and
Fred Sibley and I left the Hotel
at 0900 for the ship and a

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P15

Catalog

	Field #				
150	0950	Oceanodroma leucorhoa	Ad ♀	Ova 2 mm	
		- - - - -	-	Ovary 7 mm	
					≡ 41.5
		Molt on neck, head, back, breast & belly.			
		Primary and secondary molt complete.			
		No parasites found.			
		P.G. Du Mont Coll.			
		April 3, 1965			
		Stomach			
151	0951	Sterna fuscata	Ad ♂	Teste 13 X 7 mm	
		length extent	April 5,		
11°31'N by 150°31'W		444 - 908 -			≡ 198 gms.
Pacific Ocean		Collector D. Husted	Brood pouch bare on both sides.		
		Molt - PR 1-10	family new	Stomach	
		PL	" "		
		RR	1-6	" "	
		RL	1-6	" "	
152	0952	Sula dactylatra	April 6/1	Ovary 7 mm	
			♀		
9°30'N by 151°43'W		805 - 1635 -			≡ 1475.
Pacific Ocean		Collector D. Husted.			
		Blood. - Stomach			
153	0953	Puffinus pacificus	April 6	Adult ♂	
9°27'N x 151°47'W		865 - 1003 -			≡ 412.
Pacific Ocean		Collector D. Husted	Dark Phase		
		Stomach.			
		one primary molting on each wing. Under secondary.			
		covert molting. Molt on head, neck, back, breast.			
154	0954	Puffinus pacificus	April 6	Ad. ♂	≡ 392.0
9°27'N x 151°47'W		450 - 1015 -			
Pacific		collector D. Husted			
		Primaries and secondaries newly molted. Molt on head,			
		neck, breast and back.			
		Stomach			
		Right teste	7 X 6 mm	Left teste	10 X 6
		Light fat Dark phase			

D.L.
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155	USNM 0955	<i>Sula dactylatra</i> April 6	Sub-Adult ♀	12 x 7 mm Ovary 12 x 7 mm
8° 56' N x 152° 17' W		950 - 1790 - 103 - 63 - 92 - 168 - 500		≡ 1603
		Collector - D.L. Stadel		
		Band # 757-67344 757-67344		
		Molt on head & neck.		
		Outer four primaries old, but inner four		
		are new and inner most primary in		
		quill 1 1/2 inch long, secondaries are		
		all new on right wing.		
		Right wing is the same as the left		
		as far as molt is concerned.		
		There are white feathers coming		
		where the brown is now.		
		Location = 8° 56' N x 152° 17' W Pacific Ocean		
		Blood - Stomach		
156	USNM 0956	<i>Sula dactylatra</i> April 6	Sub-Adult	
8° 47' N x 152° 27' W		816 - 1400 - 102 - 57 - 100 - 170 - 430		≡ 1885
		Collector D. Husted & D.L. Stadel	Sex Unknown	
		Molt on neck, head & breast		
		Light fat.		
		Location 8° 47' N x 152° 27' W Pacific Ocean		
		Stomach - Blood.		
157	0957	<i>Sula dactylatra</i> April 7	Adult ♀	
8° 07' N x 153° 37' W		820 - 1520		≡ 2017
	Pacific Ocean	Ovary 18 x 8 mm, 1st ovum 1 mm	Light fat	
		Collector Doyle Husted		
		Bill light yellow. Feet but dull olive green and		
		blue at top of tarsus. Gular pouch dark grey		
		Eye yellow Blood - Stomach		

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¹⁵⁸
USNM 0958 *Sula dactylatra* April 7 ♀ Sub-Adult
5° 07' N x 153° 37' W 825-1630 = 1760

Ovary 15x5mm, granular light fat

Collector Dayle Husted

Bill cream colored. Base of Bill dark
grey or blue. Feet Grey. Eye yellow

Location = 8° 07' N x 153° 37' W Pacific Ocean

Blood Stomach

¹⁵⁹
USNM 0959 *Sula dactylatra* April 7 Subadult
8° 09' N x 153° 43' W 810-1420 = 1584

Location = 8° 9' N by 153° 43' W Pacific Ocean

Collector Dayle Husted

Band # 568-72295

Bill cream colored. Base of bill dark
grey or blue. Feet olive green. Eye
yellow

Blood Sample # 4 Stomach

Sex - Unknown

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¹⁶⁸ USNM 0960	<i>Sula dactylatra</i> April 7 ♀ Sub-Adult
8°25'N x 153°35'W	675-1710 =1808
	Location 8°28'N - 153°35'W Pacific Ocean
	Collector Dayle Husted
	Bill light cream colored. Dark grey or blue at base of bill. Feet olive green
	Eye yellow
	Band # 757-69457
	Blood stomach
¹⁶¹ USNM 0961	<i>Sula dactylatra</i> April 7, ♀ Sub-Adult
8°25'N x 153°35'W	Ovary 22x5mm, granular 0 Fat
	720-1660 =1655
	Collector: Dayle Husted. Blood, stomach
	Bill light cream colored. Dark grey or blue at base of bill. Feet olive green. Eye yellow.
	Location = 8°28'N 153°35'W Pacific Ocean
¹⁶² USNM 0962	<i>Sula dactylatra</i> April 7 Sub-adult.
8°28'N x 153°35'W	Collector - Dayle Husted Blood stomach
	Bill greenish yellow; gular and eye ring dark purple; iris silver; mouth lining purple; feet + legs brown violet, claws white
	Wgt - 1670 gm; L - 790 mm, E 1630 mm
	Band # 757-67382
	Sex - Unknown Slight fat
	Location 8°28'N by 153°35'W Pacific Ocean

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163 USNM 0963	Sterna fuscata April 11	Adult ♀
	445-895	Ovary 11x4mm; 1st ovum 2mm;
1600	brood patches present; moderate fat	
	Collector Doyle Husted.	Blood Stomach
	Bill & feet black. Iris brown	
	Gape flesh colored	
	Ticks taken from ventral body and wings	
	Location = 16°07'N x 161°34'W Pacific Ocean	
164 USNM 0964	Phaethon lepturus April 11	Adult ♀
	665-875	Ovary 10x7mm, 1st ovum <1mm
1610	Location 16°08'N	161°50'W
	Collector Doyle Husted Ken Amerman	
	Tarsus & feet Pale blue or grey. Toes	
	black. Eye brown iris	
	Bill light yellow with a black tip on upper	
	mandible. Blood Stomach	
	Parasites collected mostly from tail, and wings; none	
	from head or neck.	
165 USNM 0965	Sterna fuscata April 12	Adult
1000	450-670	≡ 228
	Location 16°37'N	169°04'W Pacific Ocean
	Collector Stadel & Husted	
	Bill and feet black. Eye brown.	
	Sex unknown	
	Brood patch bare	Stomach

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166 USNM 0966 1845	Puffinus griseus 485-835	April 13	Ad. ♂ = 814
	Left testis 7x4mm, right 6x3 - black Moderate fat.		
	Collector D.L. Stadel & D. Husted		
	Bill light and dark brown mixed.		
	Bill Grey at base of & along ventral surface of the lower mandible		
	Iris brown		
	Feet light blue or light grey on inside of tarsus and feet. Outside of tarsus light brown & turning to black at posterior edge of tarsus.		
	Bottom of toes dark brown		
	Brown pigment at joints of phalanges on dorsal surface of toes.		
	Brood pouch was bare during previous breeding season, new down coverage.		
	Molt - on breast	Blood, Stomach	
167 USNM 0967	Sula Sula	April 14	Sub-Adult
	760-1630		= 1246
1300	Location = 13°30'N	169°38'W	Pacific Ocean
	Collector Doyle Husted	Stomach	
	Feet cream colored. Eye cream		
	Bill dark brown. Around eyes & gular pouch is light blue and grey		

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45NM	¹⁶⁸ 0968	<i>Sula sula</i>	April 14	Imm.
		1097 gm.	L-733, WS-1558	Coll D. Husted
		Bill pale pink, dark brown tip; eye skin bright (stomach) blue; gular pale lilac; iris light tan; feet dull rose, legs gray, nails white. Back, wings; tail brown, underside white, slight breast band, head+neck feathers brown with white tips.		
		Location = 13° 14' N 169° 58' W Pacific Ocean		
45NM	¹⁶⁹ 0969	<i>Sula dactylatra</i>	April 16	♀ Imm 5-Ad
		800-1650		≡ 1943
		Location = 15° 24' N 169° 54' W Pacific Ocean		
		Collector Stadel & D Husted Blood-Stomach Coll.		
		Bill very light yellow. Ovary - 15 x 6		
		Blue around eyes & gular pouch. ova-granular		
		Feet light olive green		
		Eye white		
		Molt on neck, head. No parasites		
45NM	¹⁷⁰ 0970	<i>Sterna fuscata</i>	April 16	Adult ♀
		425 - 880		≡ 214
		Location 15° 30' N 170° 08' W Pacific Ocean		
		Collector Ken Amerman		
		Bill & feet black Stomach Saved.		
		Eye brown		
		Brood Pouch bare ♀ Ovary 9 x 4		

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USNM ¹⁷¹ 0971	<i>Sterna fuscata</i>	April 16	Adult ♂
	485-915		≡ 219.5
	L. testis 11x6 mm, right 6x5 mm, moderate fat		
	Collected by Husted & Amerman		
	Bill & feet black		
	Eye dark brown		
	Location = 15° 27' N 170° 12' W Pacific Ocean		
	Blood - Stomach		
USNM ¹⁷² 0972	<i>Sterna fuscata</i>	April 16	Adult ♀
	465-885	ovary 8x5.5 mm; OV = 2x2 mm	≡ 163.0
	Location = 15° 24' N 170° 16' W Pacific Ocean		
	Collected by Husted		
	Bill & feet black		
	Eye dark brown		
	Abdominal and undertail coverts with grey to light grey feathers.		
	- Blood - Stomach		
USNM ¹⁷³ 0973	<i>Sterna fuscata</i>	April 16	Adult ♂
1042	465-890		≡ 237
	Left testis 12x8 mm, right 7x7 mm Heavy fat		
	Collector D Husted		
	Bill & feet black		
	eye brown		
	Brood Patch bare		
	Location = 15° 22' N 170° 19' W Pacific O		
	Blood. Stomach		

USNM ¹⁷⁴ 0974	<i>Sterna fuscata</i>	April 16	Adult ♀
1215	445 - 885	testes 11x5, 7/2x5 1/2	= 199.5
	Ovary 12x4mm; 19st ovum 1mm heavy fat		
	Collector Duyl Husted		
	Bill & feet black	15°10'N 170°28'W	
	Eye dark brown	Location = Pacific Ocean	
	Brood patch bare		
	Blood Stomach		
USNM ¹⁷⁵ 0975	<i>Sterna fuscata</i>	April 16	Adult ♂
1215	445 - 850		= 218.5
	Location 15°10'N 170°28'W Pacific Ocean		
	Collector Husted & Stadel 1		
	Bill & feet black		
	Eye dark brown	Testes 11x5, 7/2x5 1/2	
	Brood patch partially refeathering		
	Blood Stomach		
USNM ¹⁷⁶ 0976	<i>Sula sula</i>	April 16	Sub-Adult ♀
1250	780 - 1455		= 1300
	Location = 15°06'N 170°31'W Pacific		
	Collector P. Gould & D.L. Stadel		
	Red feet.		
	Blood Stomach ectoparasites		
	Ovary - 18x9		
	Ova - 71mm		

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177	MSNM 0977	<i>Sterna fuscata</i>	April 16	Ad. ♀
1405		445-845		≡ 204.5
		Ovary 12 x 7mm, Lgst ovum 4mm		
		Collector Dayle Husted	Stomach	
		Bill & feet black, eye brown		
		Band # 753-79962	Orange	
		Brood pouch bare; no parasites		
		Location = 14° 59' N	170° 37' W	Pacific Ocean
178	MSNM 0978	<i>Puffinus pacificus</i>	April 16	Teste 5x3 5x3 Ad. ♂
1430		455-840		≡ 342
		Location = 14° 59' N	170° 37' W	Pacific Ocean
		Collector D Husted	Stomach	♂
		Eye dark brown		
		Feet pink with brown pigment		
		Bill mottled grey & pink with a grey tip		
		Molt on back, neck, scapulars, throat		
179	MSNM 0979	<i>Sterna fuscata</i>	April 16	Ad. ♂ Left 12x7 Teste Right 7x5
1431		450-883		≡ 241
		Location = 14° 55' N	170° 51' W	Pacific
		Collector D Husted & Ken A merman		♂
		Feet & bill black, eye brown		
		Stomach		

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180
USNM 0980

Phaethon lepturus April 16, Sub-Adult

15115

560-825

= 287.5

Location = 14°47'N 170°50'W Pacific Ocean

Collector Ken Amerman

Bill light yellow, black behind lores

Legs light pink & blue

Feet black, Eye dark brown

Blood- stomach

181
USNM 0980

Sterna fuscata

April 16

Adult ♀

305-871

= 212.0

Location = 14°36'N 171°03'W Pacific Ocean

Collected by Dayle Husted Ov. 10x7.5; 17 ov. - 4x4 mm

Bill and feet black.

Eye dark brown

Brood patch bare

Stomach

182
USNM 0982

Sterna fuscata

April 16

Adult ♂

450-865

= 255.0

Location = 14°36'N 171°03'W Pacific Ocean

Collected by Dayle Husted

Bill and feet dark brown

Eye dark brown

Very large brood patch

Testis 6x2.5; 5x2 mm

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MSMM 0983 ¹⁸³	<i>Sterna fuscata</i>	April 16	Adult ♀
	460-900		≅ 229.0
	Location = 14° 36' N 171° 03' W Pacific Ocean		
	Collected by Dayle Husted		
	Feet and bill black		
	Eye dark brown		
	No brood patch Moderate fat		
	Ovary 10.5 x 10	Ova 2.5	
MSMM 0984 ¹⁸⁴	<i>Sterna fuscata</i>	April 16	Adult ♀
	463-865		≅ 230.5
	Location = 14° 36' W 171° 03' W Pacific Ocean		
	Collected by Dayle Husted		
	Feet and bill dark black. Eye dark brown		
	Ovary 14 x 5	Ova 2mm	
	Brood patch bare Moderate fat		
	Flw Band # 753-76120 - Orange streamers		
MSMM 0985 ¹⁸⁵	<i>Sterna fuscata</i>	April 16	Adult ♂
	460-880	LT 8x5.5, RT 5x3.5	≅ 195.0
	Location = 14° 36' N 171° 03' W Pacific Ocean		
	Collected by Dayle Husted		
	Brood Patch bare		
	Feet and bill black. Eye dark brown		
	Moderate fat		

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USNM 186 0986	<i>Sterna fuscata</i>	April 16	Adult ♀ = 170.0
	425-860		
	Location = 14° 36' N 171° 03' W	Pacific	
	Collected by	Dayle Husted	
	No Parasites	Brood pouch bare	
	Feet and bill black.	Eye dark brown	
	Ovary - 13x7 mm; lrg. ov - 2x2		
	Blood	Stomach	
USNM 187 0987	<i>Phaethon lepturus</i>	April 17	Sub-Adult ♂ = 318
	620-840		
	Location 13° 40' N 172° 49' W	Pacific Ocean	
	Collector	Dayle Husted	testes = 6x3; 7x2½ and tip
	Bill - yellow green w/ grey at extreme base and gray black about nares		
	Legs blue-grey; distal 1/3 thighs & digits blue-black; Eye black.		
	385 Total length without long tail feather.		
	Blood - Stomach		
USNM 188 0988	<i>Phaethon rubricauda</i>	April 17	Sub-Adult ♀ = 509
	580-1120		
	Location = 13° 40' N 172° 49' W	Pacific Ocean	
	Collector	Dayle Husted	testes 8x3; 6.5x3
	Very small ovary - 12x7.5 mm		
	largest ovum - granular		
	Blood -		
	550 505 Total length with out long tail		

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USNM	¹⁸⁹ 0989	<i>Sula dactylatra</i>	April 17	SubAdult ♂
		847-1549		≅1910.0
		Location = 14° 14' N 172° 43' W Pacific Ocean		
		Collected by Dayle Husted		
		Bill grey on face, grey-green on rostr; feet grey		
		Feet black ; no brood patch Eye very light yellow		
		Blood Teste - 9 X 2 mm		
USNM	¹⁹⁰ 0990	<i>Phaethon lept rubricauda</i>	April 17	Sub-Adult ♂
		725-1150		≅838
		Location = 14° 26' N 172° 32' W Pacific Ocean		
		Collector Dayle Husted	Testis = 8 x 3; 6.5 x 3 mm.	
		490 Total length without long tail feather		
		Molt on head, neck, body & flight feathers.		
		Bill Orange. Legs pinkish blue		
		Feet black Iris dark brown		
USNM	¹⁹¹ 0991	<i>Oceanodroma leucorhoa</i>	April 17	Adult
		210-475		≅45.4
		Location = 14° 32' N 172° 24' W Pacific Ocean		
		Collector D.L. Stadel		
		Bill & feet black		
		Eye dark brown. No parasites.		
		♀ ovary = 5 x 6 mm, largest ova = 1 mm.		
		Small amt. Fat, heavy molt.		
		Blood		

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192	USNM 0992	<i>Sula dactylatra</i>	April 18	Adult	♂
		845 - 1485			≡ 1848
		Collector - D. Husted	Blood	Teste - L+ - 12 x 2 RT - 9 x 2	
		Bill pale yellow; gular and eye skin dark purple; iris bright yellow; mouth lining purple; legs & toes greenish-gray, webs purple-brown.			
		No brood patch.			
		Location = 16° 38' N ^{16° 38' N} 171° 20' W ^{171° 20' W} Pacific Ocean			
193	USNM 0993	<i>Sterna fuscata</i>	April 18	♂	Adult
		440 - 840			184.5
		Location = 16° 36' N 171° 26' W Pacific Ocean			
		Collector Dayle Husted			
		Feet & bill black. Eye dark brown			
		Teste L - 12 x 6 R 8 x 6.5			
		Moderate fat			
		Blood			
194	USNM 0994	<i>Sterna fuscata</i>	April 18	♀	Adult
		430 - 850			≡ 197
		Location = 16° 36' N 171° 26' W Pacific Ocean			
		Collector Dayle Husted			
		Feet & bill black Eye dark brown			
		Ovary 9 x 6 mm largest ova 1 mm			
		No parasites			
		Light fat			

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195 USNM 0995	<i>Sterna fuscata</i>	April 18	Adult ♀
100	430 450 - 850		≡ 220 gm
	Location = 16° 36' N 171° 26' W Pacific Ocean		
	Collector D. Husted		
	Feet and bill black ^{black} Eye dark brown		
	Ovary - 8.5 x 6 mm; Lrg. Ov - 1.5 x 1.5 mm		
	Blood		
196 USNM 0996	<i>Sula dactylatra</i>	April 18	Sub-Adult
10	860 - 1700		≡ 2090 gm
	Location = 16° 31' N 171° 29' W Pacific Ocean		
	Collector D. Husted		
	Bill very light yellow. Eyes Yellow		
	Dark blue around face & eyes.		
	Feet blue-grey		
	Blood		
196 USNM 0997	<i>Oceanodroma leucorhoa</i>	April 18	Adult ♀
	204 - 476		≡ 35.5 gm
	Location = 15° 58' N 172° 04' W Pacific Ocean		
	Collector P. DuMont		
	Bill, feet, legs black		
	Ovary 3 x 3		

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1965

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USNM ¹⁹⁹ 0998	<i>Sterna fuscata</i> April 18	Ad. ♀
	440-865	≡ 217
	Location = 15° 44' N 172° 20' W Pacific Ocean	
	Collector Dayle Husted	
	Brood patch bare	
	Feet & bill black. Eye dark brown	
	Ovary 11 x 10 mm ova 2mm	
	Moderate fat	
USNM ¹⁹⁹ 0999	<i>Sterna fuscata</i> April 18	♂ Adult
	415-860	≡ 218.5
	Location = 15° 44' N 172° 20' W Pacific Ocean	
	Collector Dayle Husted	
	Brood patch bare	
	Bill and feet black. Eye dark brown	
	Teste = L = 6 x 3 R = 4 x 2	
	Medium fat	
USNM ²⁰⁰ 1000	<i>Sterna fuscata</i> April 18	Ad. ♂
	465-870-	250
	Left Testis 9 x 7 mm, right 7 x 7 mm heavy fat	
	Location = 15° 44' N 172° 20' W Pacific Ocean	
	Brood patch covered	
	Bill and feet black, Eye dark brown	
	Collector - Dayle Husted	

P 31

195 USNM 0995	<i>Sterna fuscata</i>	April 18	Adult ♀
100-430	850		≡ 220 gm
	Location = 16° 36' N 171° 26' W Pacific Ocean		
	Collector D. Husted		
	Feet and bill black black Eye dark brown		
	Ovary - 8.5 x 6 mm; Lrg. Ov - 1.5 x 1.5 mm		
	Blood		
196 USNM 0996	<i>Sula dactylatra</i>	April 18	Sub-Adult
100-560	1700		≡ 2090 gm
	Location = 16° 31' N 171° 29' W Pacific Ocean		
	Collector D. Husted		
	Bill very light yellow. Eyes Yellow		
	Dark blue around face & eyes.		
	Feet blue-grey		
	Blood		
197 USNM 0997	<i>Oceanodroma leucorhoa</i>	April 18	Adult ♀
	204 - 476		≡ 35.5 gm
	Location = 15° 58' N 172° 04' W Pacific Ocean		
	Collector P.G. DuMont		
	Bill, feet, & legs black ovary 3 x 3		

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USNM	²⁰¹ 1001	Sterna fuscata	April 18	Adult ♀
		440-810		≅ 222
		Ovary 10x7mm. 195t ova < 1mm light fat		
		Collector Dayle Husted.		
		Brood patch bare		
		Bill and feet black. lips Eyes dark brown		
		Location = 15° 44' N 172° 20' W Pacific Ocean		
USNM	²⁰² 1002	Sterna fuscata	April 18	♀ Adult
		465-870		²⁰⁶ ≅ 258
		Location = 15° 44' N 172° 20' W Pacific Ocean		
		Collector Dayle Husted		
		Brood patch covered bare		
		Bill and feet black. Eyes dark brown		
		Ovary 9x12 Ova 2x2		
		Very heavy fat		
	²⁰³ 1003	Sterna fuscata	April 18	Ad. ♂
		455-870		≅ 275
		Left testis 16x10mm, right 10x7mm Heavy fat		
		Collector Dayle Husted		
		Brood Patch partially bare		
		Bill and feet black. Eyes dark brown		
		Location = 15° 44' N 172° 20' W Pacific Ocean		

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204 1004	<i>Sterna fuscata</i>	April 18	Ad. ♀
	430-860		≡ 208
	ovary 9x6mm	1st ova 1mm	light fat
	Collector	Dayle Husted	
	Band #	753-92732	orange streamer
	Brood patch	bare	
	Bill and feet	black	Eyes dark brown
	Location =	15° 44' N 172° 20' W	Pacific Ocean
205 1005	<i>Sterna fuscata</i>	April 18	Adult ♀
	445-870		≡ 208
	ovary 10x6	1st ovum 3mm	heavy fat
	Collector	Dayle Husted	
	Bill & feet	black	Eyes dark brown
	Brood patch	partially covered	
	Location =	15° 44' N 172° 20' W	Pacific Ocean
206 1006	<i>Sterna fuscata</i>	April 18	
	440-850		≡ 210
	Location =	15° 44' N 172° 20' W	Pacific Ocean
	Collector	Dayle Husted	
	Brood patch	bare	Moderate fat
	Bill and feet	black	Eyes dark brown
	ovary 11 x 6.5mm	ova 1mm	

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1965

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P35,

207
1007

Pterodroma hoveensis

April 18

325-750

≅ 171.5

Location = 18° 44' N 172° 20' W Pacific Ocean

Collector Dayle Husted

Bill black. Legs blueish-pink. Feet Black

Eye dark brown

USNM

208
1008

Anous

stolidus

April 19

Adult ♂

440-845

≅ 216

Location = 14° 49' N

173° 58' W

Collector D.L. Stadel

Testis small (4 x 2 mm ±)
Heavy molt; medium fat

Molt on head, neck, breast, back
and secondaries & primaries. No stomach sample kept.

Bill black. Feet dark brown

Blood

USNM

209
1009

Sterna fuscata

April 19

Adult ♂

438 - 892

≅ 195.0 gm.

Left testis 6 x 3.5 mm, right 5 x 3 moderate fat

Collector Dayle Husted

Bill black. Feet, legs black. Eye dark brown

Blood patch present

Location = 15° 38' N 173° 39' W

Blood - Stomach.

Skin labeled
1000
is skinned
out
No stomach
Sample for
1000

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1965

Catalog

P36

210

1010

Sterna fuscata April 20 Adult ♂

450-890

=180.5

Location = 17°16'N 171°10'W

Collector D.L. Stadel

Feet & bill black. Eye dark brown

Brood patch bare Very light fat

Teste - L 6x2 R 10x3 ~~Light fat~~

211
USNM 1011

Puffinus (subsp.) April 20 Adult ♂

450-920

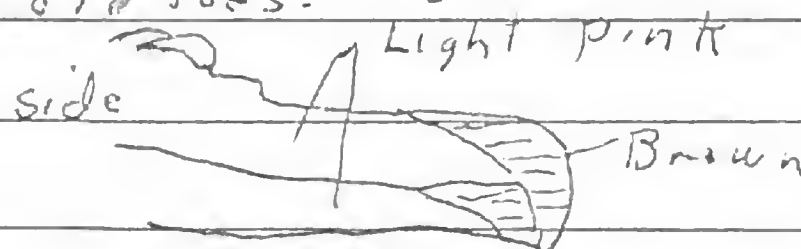
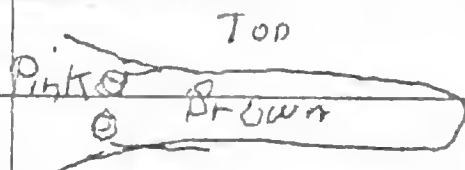
=612

Location = 17°28'N 170°31'W Blood

Collector Dayle Husted

LT 6x3, RT 5x2

Feet light pink with brown pigment - on
outside & bottom of toes.



212
USNM 1012

Sterna fuscata Adult ♀ April 20

440-840 Ovary 12x8mm, 1st ova 1.5 =172.5

Location 17°28'N 170°31'W

Collector Dayle Husted

Brood patch bare Light fat

Bill & feet black. Eye dark brown

Blood

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Stadel
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213 USNM 1018	<i>Sterna fuscata</i>	April 20, 1965	Adult ♂
	470-875		≅ 200
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare LT 5.5x2.5, RT 4x2.5		
	Bill and feet black. Eye dark brown		
	Light fat		
	Blood		
214 USNM 1014	<i>Sterna fuscata</i>	April 20	Adult ♀
	420-870		≅ 175
	Location 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare		
	Bill and feet black. Eye dark brown.		
	Ovary 9x9	Ova 2.5x2.5	
	light fat		
215 USNM 10105	<i>Sterna fuscata</i>	April 20	Adult ♂
	430-890		≅ 235.5
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare		
	Bill and feet black. Eye dark brown		
	light fat		
	Teste = Left 8x3.5 Right 6x3		

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USNM 1016 ²¹⁶	<i>Sterna fuscata</i>	April 20	Adult ♀
	415-840		≡ 215
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood Patch bare		
	Bill and legs black. Eye dark brown		
	Ovary 10x12 ova 2x2		
USNM 1017 ²¹⁷	<i>Sterna fuscata</i>	April 20	Adult ♂
	450-820		≡ 204
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch covered		
	Bill and legs black. Eyes dark brown		
	Testis slightly enlarged, but shot up and not measurable		
	Small amt. fat		
USNM 1018 ²¹⁸	<i>Sterna fuscata</i>	April 20	Adult ♂
	420-885		≡ 244
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare		
	Bill and legs black. Eyes dark brown		
	Teste = L 5.5 x 3 R 4 x 2.5		
	Light fat		

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USNM 1019 ²¹⁹	<i>Sterna fuscata</i>	April 20	Adult ♀
	435-840		≡ 207
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare ovary 9x6mm, 1st ova 2mm		
	Bill and legs black. Eyes dark brown		
	Light fat		
USNM 1020 ²²⁰	<i>Sterna fuscata</i>	April 20	Adult ♂
	440-850		≡ 224
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare		
	Bill and legs black. Eyes dark brown		
	Teste = R 6x2.5 L 4.5x2		
	Medium Fat		
USNM 1021 ²²¹	<i>Sterna fuscata</i>	April 20	Adult ♀
	435-850	ovary 10x10mm, ova < 1mm	≡ 191
	Location = 17°28'N 170°31'W		
	Collector Dayle Husted		
	Brood patch bare Light fat		
	Bill and legs black. Eyes dark brown		

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222
USNM 1022

Sterna fuscata April 20 Adult ♀

415-860

≡ 218

Location = ~~158~~ 17° 28' N 170° 31' W

Collector Dayle Husted

Brood Patch bare

Bill and legs black. Eyes dark brown.

Ovary 6x9 ova 21mm

light fat

223
USNM 1023

Sterna fuscata April 20 Adult ♀

455-900

≡ 211

Location = 17° 28' N 170° 31' W

Collector Dayle Husted

Brood patch bare

Bill and legs black. Eyes dark brown

Ovary 13x7 ova 4x4

224
USNM 1024

Sterna fuscata April 20 Adult ♀

420-870

≡ 181

Location = 17° 28' N 170° 31' W

Collector Dayle Husted light fat

Brood patch bare Ovary ~~12~~ 12x7mm, 1st oval

Bill and legs black. Eyes dark brown

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USNM	²²⁵ 1025	<i>Sterna fuscata</i>	April 20	Adult ♀	
		8440-845			≡ 203
		Location =	17° 28' N	170° 31' W	
		Collector	Dayle Husted		
		Brood Patch	bare		
		Bill and legs	black.	Eyes dark brown.	
		Ovary	7x8	ova	1.5x1.5
USNM	²²⁶ 1026	<i>Puffinus pacificus</i>	April 20	Adult ♂	
		460-900			≡ 348.5
		Location =	17° 40' N	169° 57' W	
		Collector -	Dennis L. Stadel		
		Brood patch	covered		
		Feet pink with brown pigment on outside of tarsus & at the phalange joints.			
		Bands.	615-01851 & 565-12113		
		Red paint on head	(Johnston Is. Bird)		
		Orange Streamer	Blood - Stomach		
USNM	²²⁷ 1027	<i>Puffinus pacificus</i>	April 20	Sub-Adult	
		455-890			-362
		Location =	17° 40' N	169° 57' W	
		Collector	Dayle Husted		
		Brood patch	covered		
		Feet pink with brown pigment on outside of tarsus and at the phalange joints			
		Sub-Adult bird, because feathers are almost black & breast feathers have grey on them			
		Blood	Stomach		

usNM	228 1028	Sterna fuscata	April 20	Adult ♀
		484 - 866		≡ 197.0 gm.
		Location = 17°42' N 169° 47' W		
		Collector D.L. Stadel		
		Bill, legs + feet black	Ovary	14 X 7
		Eye dark brown	Ova	3 X 3
		Brood patch bare		
		FWS # 753-98028 ; Orange streamer (Johnston Is.)		
usNM	229 1029	Sula dactylatra	April 21,	Sub-Adult ♀
		900-2215		≡ 2299
		Location 18° 38' N 166° 51' W		
		Collector Pat Gould		
		Bill light yellow	Eye	yellow
		Feet brownish purple		
		Ovary	15 X 5	
		Ova - minute		
usNM	230 1030	Sterna fuscata	April 21	Adult ♀
		435 - 885		≡ 262
		Location 18° 48' N 166° 19' W		
		Collector Doyle Husted		
		Brood patch bare		
		Feet & bill black . Eyes dark brown		
		Ovary	13 X 7	Ova 2 X 2

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231 USNM 1031	Sterna fuscata	April 21	Adult ♂
	310-885	L.T. 11x5, R.T. 5x4 mm	≡ 197
	Location	18° 48' N 166° 19' W	
	Collector	Hasted	
	Brood patch	covered	light fat
	Feet & bill	black	Eyes dark brown
232 USNM 1032	Puffinus pacificus	April 21	Adult ♀
	455-990		≡ 401
	Location	19° 48' N 166° 19' W	
	Collector	Hasted	
	Bill	gray	Feet pink with brown pigment
	Ovary	14x8 mm	larger ovum 2.5x2 mm
1033	Sterna fuscata	April 21	Adult ♂
	455-895		≡ 201
	Location	19° 02' N 165° 36' W	
	Collector	Doyle Hasted	
	Brood Patch	bare	
	Bill & feet	black	Eye dark brown
	testes	Left 6x3	Right 6x3

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234

1034

Puffinus pacificus

♀
Adult

April 21

440-980

371

Location ^{19° 06' N}
165° 23' W

Collector D.L. Stadel

Ovary 13x7 Ova 2

235

1035

Fregata minor April 21,

Adult ♂

925-1975

1180

Location ^{19° 06' N}
165° 23' W

Collector = Dayle Husted

Blood

Gular pouch bright red.

1036

Puffinus pacificus

April 22

Adult ♂

460-100

369

Location ^{19° 04' N}
163° 13' W Teste - 16x9 Lt - 9x8 Rt

Collector Dayle Husted

Bill grey. Feet pink with brown pigment
on the outside of the tarsus & at
the joint.

Blood

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1037 *Sala dactylatra* April 22, Sub-Adult ♀

850-1615

= 1895

Location ^{19° 44' N} 163° 13' W Ovary 23x6 Ova 1mm

Collector ~~Bert~~ Ken Amerman

Bill light yellow or cream colored.

Feet brownish purple. Eye Yellow

Dark blue around face

²³⁸
1038

Sterna fuscata April 22 Adult ♂

450 - 780

=

Location ^{19° 48' N} 163° 02' W

Collector D.L. Stadel L Testis 6.5 x 2

Bill, legs, feet black R " 5. x 1.5

Eye dark brown

Broad patch bare

Light fat.

²³⁸
1039

~~*Bulweria bulwerii* April 22 Adult~~

=

~~Location~~

~~Collector~~

~~Bill black, eye dark brown~~

~~Legs grey tinge or pink; feet pinkish, 1/2 brown-grey~~

~~pigment (mostly on toes + underside of feet)~~

~~Heavy molt~~

~~No broad patch;~~

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1039 *Bulweria bulwerii* April 22. Adult ♂

280-680

≡104

Location ^{14° 52' N}
162° 49' W

Collector Dayle Husted

Brood patch covered.

Bill black. Feet & legs pink with
brown pigment. Eye dark brown.

1040 *Bulweria bulwerii* April 22. Adult

280-670

≡83

Location ^{14° 52' N}
162° 47' W

Collector = Dayle Husted

No brood patch

1041 *Sterna fuscata* April 22 Adult ♂

455-905

≡192

Location ^{14° 52' N}
162° 47' W

Collector - Husted

Brood patch present LT 7x3 RT 5x2

Bill, legs, feet black, iris dark brown

Light fat

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1042 *Sterna fuscata* April 22 Adult ♂
440-870 $\equiv 166$
Location $19^{\circ} 52' N$
 $162^{\circ} 47' W$ Collector - Husted
Bill, legs, feet black; iris dark brown
Brood patches present LT 4x3 RT 3.5x2.5
Light fat

1043 *Sterna fuscata* April 22 Adult ♂
440-890 $\equiv 170$
Location $19^{\circ} 52' N$
 $162^{\circ} 47' W$ Collector - Husted
Bill, legs, feet black; iris dark brown
Brood patches present
Teste - LT 6.5x3 RT. 4.5x2
Light fat

1044 *Sterna fuscata* April 22 Adult ♂
470-900 $\equiv 168$
Location $19^{\circ} 55' N$
 $162^{\circ} 40' W$ Collector - Husted
Bill, legs & feet black, iris dark brown
Brood patches present
L Testis 7x5.5, R Testis 5.5x4; no fat

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1965

Catalog

1048

1045	<i>Bulweria bulwerii</i>	April 22	Adult ♂
	282-641		≅ 81.0 gm
	Location ^{20° 00' N} 162° 14' W		
	Collected by Gould	Light fat.	
	Bill black; eye dark brown		
	Legs grey-pink; lower part of phalanges black,		
	upper part pink. No broad patch		
	Teste Lt 3.5 x grey RT 5 mm white		
1046	<i>Bulweria bulwerii</i>	April 22	Adult ♂
	274-642		≅ 85.0 gm
	Location ^{20° 02' N} 162° 09' W		
	Collected by Husted	Light fat.	
	Bill black, eye dark brown		
	Bill black; e		
	Legs grey pink; lower part of feet ^{dark brown} pink.		
	black; upper part of toes pink		
	No broad patch		
	Teste Lt 6 mm RT 7 mm		
1047	<i>Bulweria bulwerii</i>	April 22	Adult
	275-634		≅ 77.5 gm.
	Location ^{20° 03' N} 162° 05' W		
	Collected by Husted		
	Bill black, eye dark brown		
	Legs pink; upper part of feet dull pink + brown; lower		
	part of feet dingy black.		
	No broad patch		

[illegible]